



Chapter 4. Priority Populations

Many Americans enjoy easy access to one of world's finest health care delivery systems. However, as demonstrated in the 2003 National Healthcare Disparities Report (NHDR), some Americans do not have full access to the best quality health care.

To examine the issue of disparities in health care, Congress directed the Agency for Healthcare Research and Quality (AHRQ) to produce an annual report to track “prevailing disparities in health care delivery as it relates to racial factors and socioeconomic factors in priority populations.”¹ While the emphasis is on disparities related to race, ethnicity, and socioeconomic status (SES), this directive includes a charge to examine disparities in “priority populations”—groups with unique health care needs or issues that require special attention.

This chapter addresses the congressional directive on priority populations. Chapters 2 and 3 of this report examine racial, ethnic, and socioeconomic differences in quality of health care and access to health care in the general U.S. population; this chapter focuses on differences within and across priority populations. For example, comparisons are made between black and white women and between low income and high income women. This approach may help policymakers understand the impact of racial, ethnic, and socioeconomic differences on specific populations and to target quality improvement programs towards groups in greatest need. Appendix D includes detailed tables that allow examination of racial, ethnic, and socioeconomic disparities both in the general population and across priority populations for most measures.

Priority Populations

AHRQ's priority populations, specified by Congress in the Healthcare Research and Quality Act of 1999 (Public Law 106-129), are:

- Low income groups
- Minority groups
- Women
- Children
- Elderly
- Individuals with special health care needs, including individuals with disabilities and individuals who need chronic care or end-of-life health care.

In addition, this legislation directs AHRQ to examine health care delivery in rural areas. Hence, this chapter addresses each of these priority populations as well as residents of rural areas.



How This Chapter Is Organized

This chapter presents new information about disparities in quality of and access to health care in priority populations. It is presented in the following order:

- Racial and ethnic minorities
- Low income groups
- Women
- Children
- Elderly
- Residents of rural areas
- Individuals with special health care needs

To avoid repetition of findings from previous chapters on race, ethnicity, and SES, the first two sections summarize quality of and access to health care for racial and ethnic minorities and low income groups.

Subsequent sections focus on the remaining priority populations and examine disparities in care within each population group. In addition to presenting new data, this chapter goes beyond last year's report by adding changes over time as well as some stratified analyses. To present this greater detail, these sections highlight a small number of measures. Results for all measures are found in the detailed appendix tables.

It should be noted that this chapter does not provide a comprehensive assessment of health care differences in each priority population. Most of the measures tracked in the NHDR were selected to be applicable across many population groups; only a few, such as immunizations among children and screening for breast cancer among women, were specific to particular groups. For some groups, these general measures overlook important health care problems specific to particular populations. In addition, national data may not address key health issues for specific population groups, including persons with disabilities, and are often unable to generate reliable estimates for many smaller groups. Instead, this chapter should be seen as a starting point, identifying some problem areas and indicating gaps in current data and understanding.



Racial and Ethnic Minorities

In 2000, about 30% of the U.S. population identified themselves as members of racial or ethnic minority groups. By 2050, it is projected that these groups will account for almost half of the U.S. population.² Census 2000 counted over 36 million blacks or African Americans (12.9% of the U.S. population);³ over 35 million Hispanics or Latinos who live in the U.S. (12.5%) and another 3.8 million who live in the Commonwealth of Puerto Rico;⁴ almost 12 million Asians (4.2%);⁵ 874,000 Native Hawaiians and Other Pacific Islanders (0.3%);⁶ and over 2 million American Indians and Alaska Natives (0.7%), of whom 38% reside on Federal trust lands.⁷ Racial and ethnic minorities are more likely than non-Hispanic whites to be poor or near poor.⁸ In addition, Hispanics, blacks, and some Asian subgroups are less likely than non-Hispanic whites to have a high school education.⁹ In general, racial and ethnic minorities often experience worse access to care and lower quality of preventive, primary, and specialty care.^{8 9}

In previous chapters of this report, health care differences by racialⁱ and ethnicⁱⁱ categories as defined by the Office of Management and Budget (OMB) and used by the U.S. Census Bureau are described.¹⁰ In this section, quality of and access to health care for each minority group are summarized. While a large number of quality of and access to care measures are examined in the NHDR, a subset of measures, for which comparable data are available for 2000 and 2001, are highlighted in this section. Specifically, this subset consists of 38 measures of effectiveness of health care and 31 measures of access to health care. Data sources are the Surveillance, Epidemiology, and End Results program, U.S. Renal Data System, Medical Expenditure Panel Survey, the CDC AIDS Surveillance System, National Vital Statistics System-Natality, National Immunization Survey, National Health Interview Survey, and National Hospital Discharge Survey. Mortality and health care utilization measures are not included to allow focus on quality and access measures more directly related to health care. Data on all measures were not available for all groups. See Tables 1.2 and 1.3 for lists of measures available for each group and Appendix C for data on each measure for each group. Changes in differences related to race and ethnicity between 2000 and 2001 are examined. For each group, a measure can be worse than, about the same as, or better than an appropriate comparison group. Only relative differences of at least 10% and that are statistically significant with $p < 0.05$ are discussed in this report.

The 2003 NHDR examined differences in health care by patient language as well as differences in health care among various Hispanic and Asian subgroups and among American Indians and Alaska Natives who obtain care from Indian Health Service (IHS) facilities. New data on language and subgroups are not available this year, so the 2004 NHDR does not contain a corresponding section; it is anticipated that new data will be available for the next NHDR. The current report does include expanded measures related to care delivered by IHS facilities.

ⁱRaces include: black or African American, Asian, Native Hawaiian or Other Pacific Islander, American Indian and Alaska Native, and white.

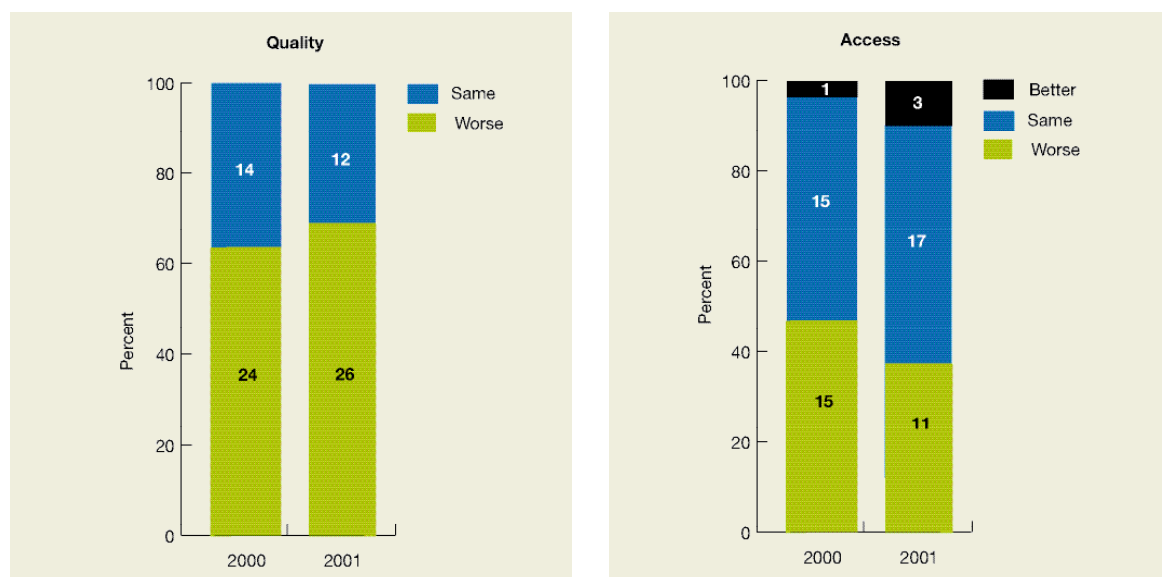
ⁱⁱEthnicity differentiates Hispanics and non-Hispanics. This report also distinguishes non-Hispanic whites and non-Hispanic blacks.



Blacks or African Americans

In the 2003 NHDR, blacks had poorer quality of care than whites for about 60% of quality measures, including not receiving prenatal care and recommended childhood and adult immunizations. In the 2003 NHDR, blacks had worse access to care than whites for about 40% of access measures, including lacking health insurance or a source of ongoing health care, having problems getting referral to a specialist, and rating their health care poorly.

Figure 4.1. Blacks compared with whites in 2000 and 2001 on measures of quality of care (left) and access to care (right)



Better = Blacks receive better quality of care or have better access to care than whites.

Same = Blacks and whites receive about the same quality of care or access to care.

Worse = Blacks receive poorer quality of care or have worse access to care than whites.

Source: SEER, USRDS, MEPS, CDC AIDS Surveillance System, NVSS-N, NIS, NHIS, NHDS, 2000-2001.

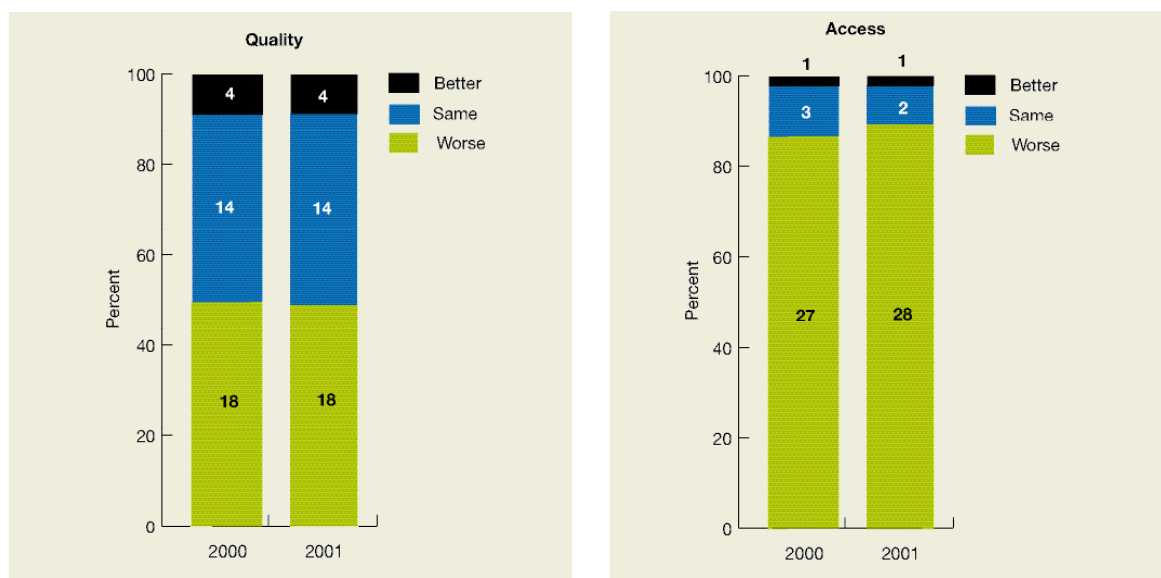
- Of the 38 measures of quality with comparable data for 2000 and 2001, blacks received poorer quality of care than whites for about two-thirds of measures in both 2000 and 2001 (Figure 4.1, left).
- Between 2000 and 2001, only 1 of these 38 measures demonstrated significant improvement among blacks while 2 demonstrated significant deterioration: black children 19-35 months who received 1 dose of varicella vaccine improved while black children 19-35 months who received 3 doses of *H. influenzae* type B or 3 doses of hepatitis B vaccine fell.
- Of the 31 measures of access with comparable data for 2000 and 2001, blacks had worse access to care than whites for about 40% of measures in both 2000 and 2001 (Figure 4.1, right).
- Between 2000 and 2001, 2 of these 31 measures demonstrated significant improvement among blacks while none deteriorated: blacks who had a source of ongoing care or who were uninsured for a full year both improved between 2000 and 2001.



Hispanics or Latinos

In the 2003 NHDR, Hispanics had poorer quality of care than non-Hispanic whites for about 40% of quality measures, including not receiving screening for cancer or cardiovascular risk factors and not receiving recommended childhood and adult immunizations. In the 2003 NHDR, Hispanics had worse access to care compared with non-Hispanic whites for over two-thirds of access measures, including lacking health insurance or a source of ongoing health care, having problems getting a referral to a specialist, and rating their health care poorly.

Figure 4.2. Hispanics compared with non-Hispanic whites in 2000 and 2001 on measures of quality of care (left) and access to care (right)



Better = Hispanics receive better quality of care or have better access to care than non-Hispanic whites.

Same = Hispanics and non-Hispanic whites receive about the same quality of care or access to care.

Worse = Hispanics receive poorer quality of care or have worse access to care than non-Hispanic whites.

Source: SEER, USRDS, MEPS, CDC AIDS Surveillance System, NVSS-N, NIS, NHIS, NHDS, 2000-2001.

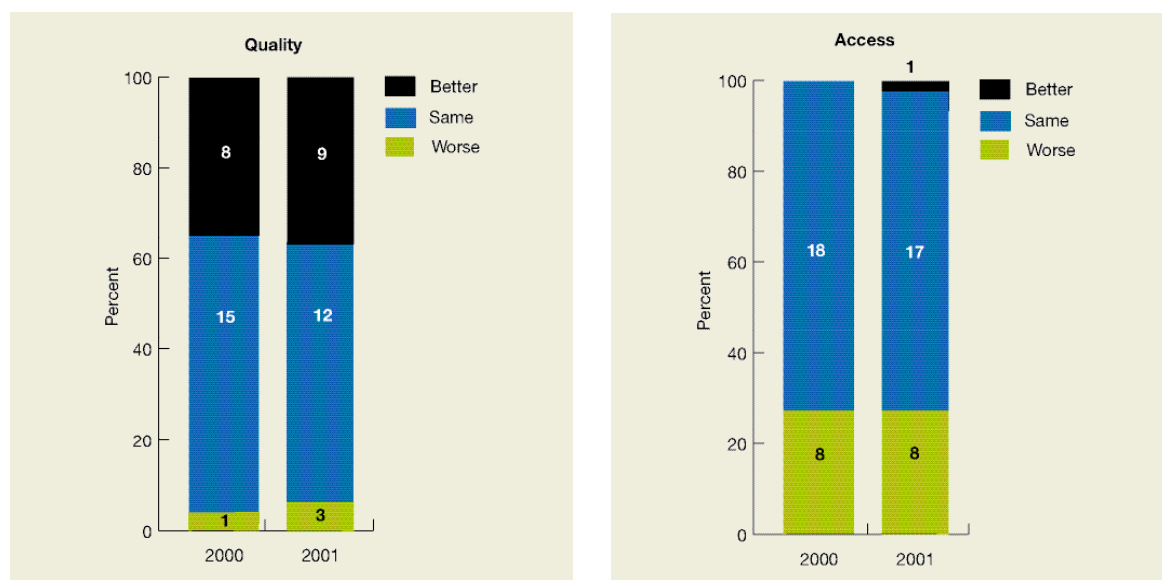
- Of the 38 measures of quality with comparable data for 2000 and 2001, information on Hispanics was available for 36. Of these 36 measures, Hispanics received poorer quality of care than non-Hispanic whites for half of measures in both 2000 and 2001 (Figure 4.2, left).
- Between 2000 and 2001, 5 of these 36 measures demonstrated significant improvement among Hispanics while 1 demonstrated significant deterioration: receipt of several different vaccines improved among Hispanic children 19-35 months between 2000 and 2001 while receipt of influenza vaccine among high risk adults 18-64 deteriorated.
- Of the 31 measures of access with comparable data for 2000 and 2001, Hispanics had worse access to care than non-Hispanic whites for about 90% of measures in both 2000 and 2001 (Figure 4.2, right).
- Between 2000 and 2001, none of these 31 measures demonstrated significant improvement among Hispanics while 1 deteriorated: Hispanic adults reporting no problems getting referral to a specialist fell between 2000 and 2001.



Asians

In the 2003 NHDR, Asians had poorer quality of care than whites for about 12% of quality measures and better quality of care for about 15%. Despite often achieving better quality of care, in the 2003 NHDR, Asians had worse access to care than whites for about two-thirds of access measures, including lacking a source of ongoing health care and having problems with patient-provider communication.

Figure 4.3. Asians compared with whites in 2000 and 2001 on measures of quality of care (left) and access to care (right)



Better = Asians receive better quality of care or have better access to care than whites.

Same = Asians and whites receive about the same quality of care or access to care.

Worse = Asians receive poorer quality of care or have worse access to care than whites.

Source: SEER, USRDS, MEPS, CDC AIDS Surveillance System, NVSS-N, NIS, NHIS, NHDS, 2000-2001.

- Of the 38 measures of quality with comparable data for 2000 and 2001, information on Asians or Asians and Pacific Islanders in aggregate was available for 24. Of these 24 measures, Asians received poorer quality of care than whites for about 10% of measures in both 2000 and 2001 and better quality of care for about a third (Figure 4.3, left).
- Between 2000 and 2001, 2 of these 36 measures demonstrated significant improvement among Asians while none demonstrated significant deterioration: Asian children 19-35 months who received 1 dose of varicella vaccine and high risk Asian adults 18-64 who received influenza vaccine both improved between 2000 and 2001.
- Of the 31 measures of access with comparable data for 2000 and 2001, information on Asians or Asians and Pacific Islanders in aggregate was available for 26. Of these 26 measures, Asians had worse access to care than whites for about a third of measures in both 2000 and 2001 (Figure 4.3, right).ⁱⁱⁱ
- Between 2000 and 2001, 1 of these 26 measures demonstrated significant improvement among Asians while none deteriorated: ratings of overall health care improved among Asian adults between 2000 and 2001.

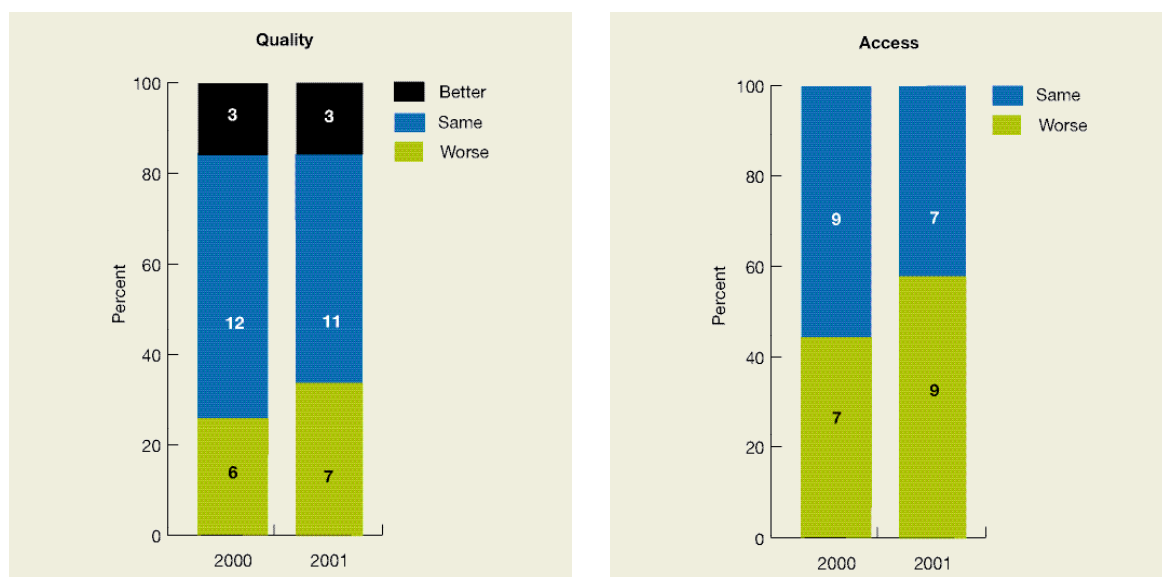
ⁱⁱⁱ The difference between findings this year and last year may be explained by the smaller number of measures relating to patient-provider communication and relationship, cultural competency, and health information in this year's report.



American Indians and Alaska Natives

In the 2003 NHDR, American Indians and Alaska Natives had poorer quality of care than whites for about a quarter of quality measures. In the 2003 NHDR, AI/ANs had worse access to care than whites for about a third of access measures, including lacking health insurance and having problems with patient-provider communication.

Figure 4.4. American Indians and Alaska Natives compared with whites in 2000 and 2001 on measures of quality of care (left) and access to care (right)



Better = AI/ANs receive better quality of care or have better access to care than whites.

Same = AI/ANs and whites receive about the same quality of care or access to care.

Worse: AI/ANs receive poorer quality of care or have worse access to care than whites.

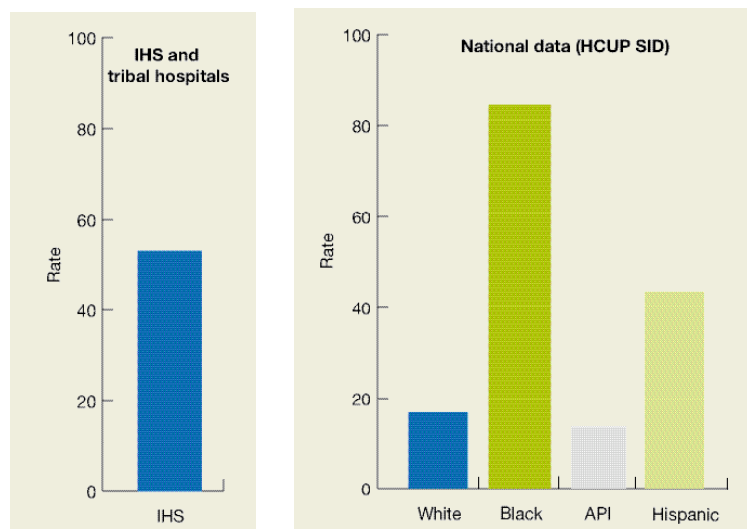
Source: SEER, USRDS, MEPS, CDC AIDS Surveillance System, NVSS-N, NIS, NHIS, NHDS, 2000-2001.

- Of the 38 measures of quality with comparable data for 2000 and 2001, information on the AI/AN population was available for 21. Of these 21 measures, AI/ANs received poorer quality of care than whites for about a third of measures in both 2000 and 2001 (Figure 4.4, left).
- Between 2000 and 2001, none of these 21 measures demonstrated significant improvement among the AI/AN population while 1 demonstrated significant deterioration: AI/AN infant mortality deteriorated between 2000 and 2001.
- Of the 31 measures of access with comparable data for 2000 and 2001, information on AI/ANs was available for 16. Of these 16 measures of access, AI/ANs had worse access to care than whites for about a half of measures in both 2000 and 2001 (Figure 4.4, right).
- Between 2000 and 2001, none of these 16 measures demonstrated significant improvement among the AI/AN population while 1 deteriorated: AI/ANs not satisfied with the quality of care they received increased between 2000 and 2001.



Focus on Indian Health Service facilities. About 60% of AI/ANs nationwide rely on the Indian Health Service to provide access to health care.¹¹ In the 2003 NHDR, among diabetics served by IHS facilities, rates of hemoglobin A1c measurement and flu vaccine were comparable to rates in the overall U.S. diabetic population, while rates of retinal eye exam and foot examination were lower.¹² Due to low numbers and lack of data, information about AI/AN hospitalizations is difficult to obtain in most Federal and State hospital data sources. The 2004 NHDR begins to address this gap by examining data from IHS and tribal hospitals. Diabetes and pneumonia are common causes of morbidity and mortality in AI/AN populations.

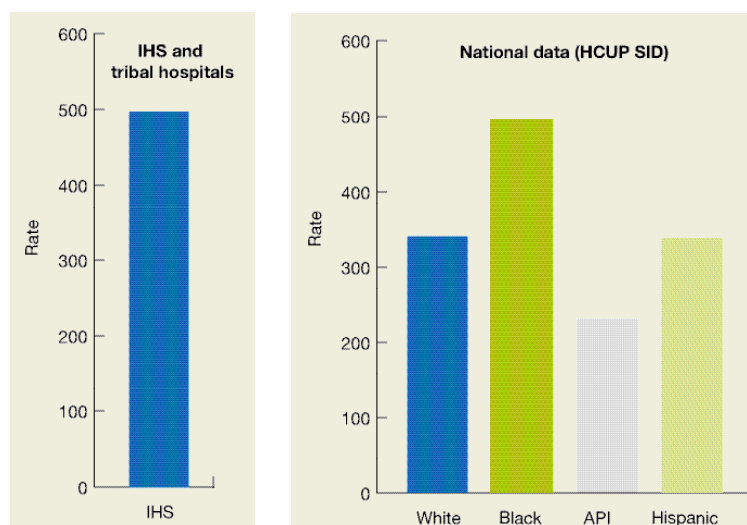
Figure 4.5. Hospitalizations for uncontrolled diabetes per 100,000 population in IHS and tribal hospitals (left) and nationally (right) by race/ethnicity



Source: IHS, National Patient Information Reporting System, 2002 and HCUP SID disparities analysis file (22 States), 2001.

- Hospitalizations for uncontrolled diabetes among AI/ANs in IHS hospitals were 53 per 100,000 population in IHS service areas in 2002 (Figure 4.5, left). In comparison, national rates were higher among blacks (85) and Hispanics (44) than non-Hispanic whites (17) in 2001 (Figure 4.5, right).

Figure 4.6. Hospitalizations for bacterial pneumonia per 100,000 population in IHS and tribal hospitals (left) and nationally (right) by race/ethnicity



Source: IHS, National Patient Information Reporting System, 2002 and HCUP SID disparities analysis file (22 States), 2001.

- Hospitalizations for bacterial pneumonia among AI/ANs in IHS hospitals were 497 per 100,000 population in IHS service areas in 2002 (Figure 4.6, left). In comparison, national rates were higher among blacks (495) and lower among APIs (230) than non-Hispanic whites (340) in 2001 (Figure 4.6, right).



Native Hawaiians and Other Pacific Islanders

The ability to assess disparities among Native Hawaiians and Other Pacific Islanders for the NHDR has been hampered by two main issues. First, the NHOPi racial category is relatively new to Federal data collection. Prior to 1997, NHOPis were classified as part of the Asian and Pacific Islander racial category and could not be identified separately in most Federal data. In 1997, the Office of Management and Budget promulgated new standards for Federal data on race and ethnicity and mandated that information about NHOPis be collected separately from information about Asians.¹⁰ Federal agencies had until 2003 to be fully compliant with these standards. Because both the 2003 NHDR and 2004 NHDR report predominantly on data collected between 1999 and 2001, many of the databases used had not fully transitioned to the new standards. Hence, few databases could provide any estimates for the NHOPi population. Second, when information about this population was collected, databases often included insufficient numbers of NHOPis to allow reliable estimates.

Consequently, in the 2003 NHDR, estimates for the NHOPi population could be generated for only a handful of NHDR measures. Similarly, in the 2004 NHDR, of the 38 measures of quality with comparable data for 2000 and 2001, estimates for NHOPis could be made for only 10 (6 measures from the National Vital Statistics System-Natality and 4 measures from the National Immunization Survey). Of the 31 measures of access with comparable data for 2000 and 2001, estimates for NHOPis could be made for only 2 (people under age 65 with health insurance and people under age 65 with private health insurance from the National Health Interview Survey). A lack of quality data on this population prohibits the 2004 NHDR from detailing disparities for this group. However, as data become available, this information will be included in future reports.



Low Income Groups

The poor are defined as people living in families whose household income falls below specific poverty thresholds. These thresholds vary by family size and composition and are updated annually by the U.S. Bureau of the Census. After falling for nearly a decade, from 2000 to 2002, the numbers of poor people in America rose from 31.6 million to 34.6 million and the poverty rate increased from 11.3% to 12.1%. Poverty varies by race and ethnicity. In 2002, 24% of blacks, 22% of Hispanics, 10% of Asians, and 10% of whites were poor.¹³

People with low incomes often experience worse health and are more likely to die prematurely.^{14 15 16 17} In general, the poor have reduced access to high quality care. Income-related differences in quality of care that are independent of health insurance coverage have also been demonstrated.¹⁸

In previous chapters of this report, health care differences by income were described. These include comparisons of low income with high income groups on diabetic services (Figure 2.2); influenza vaccination (Figure 2.5); health insurance (Figure 3.1); specific source of ongoing care (Figure 3.3); patient perceptions of need (Figure 3.4); problems getting referral to a specialist (Figure 3.5); patient-provider communication (Figure 3.7); patient-provider relationship (Figure 3.8); office or outpatient visits (Figure 3.9); Medicare-covered home health care (Figure 3.11); and mental health care (Figure 3.13). Rather than repeat these findings, quality of and access to health care for the poor are summarized in this section.

In the 2003 NHDR, health care received by the poorⁱ and by high incomeⁱⁱ individuals was compared for a large number of measures related to quality of and access to care. In the 2004 NHDR, a subset of measures, for which comparable data are available for 2000 and 2001, are highlighted. Data on all measures were not available for the poor. See Tables 1.2 and 1.3 for lists of measures available for the poor and Appendix C for data on each measure for the poor.

Changes in income-related differences over these 2 years are examined. For each measure, the poor can receive care that is worse than, about the same as, or better than care received by people with high incomes. Only relative differences of at least 10% and that are statistically significant with $p < 0.05$ are discussed in this report.

Community health centers are vital sources of health care for many low income individuals. These centers are also effective at reducing disparities; black-white disparities in overall mortality and prenatal care and Hispanic-white disparities in tuberculosis case rates and prenatal care are smaller in States with better coverage of low income persons by community health centers.¹⁹ Information on quality of and access to care provided by community health centers as well as on racial, ethnic, and socioeconomic differences in CHC care is also presented in this section.

In the 2003 NHDR, the poor had lower quality of care than high income people for about two-thirds of quality measures with available data, including not receiving screening for cancer or cardiovascular risk factors and not receiving recommended childhood and adult immunizations. In the 2003 NHDR, the poor had worse access to care than high income people for about two-thirds of access measures, including lacking health insurance or a usual source of health care, having problems getting referred to a specialist, and rating their health care poorly.

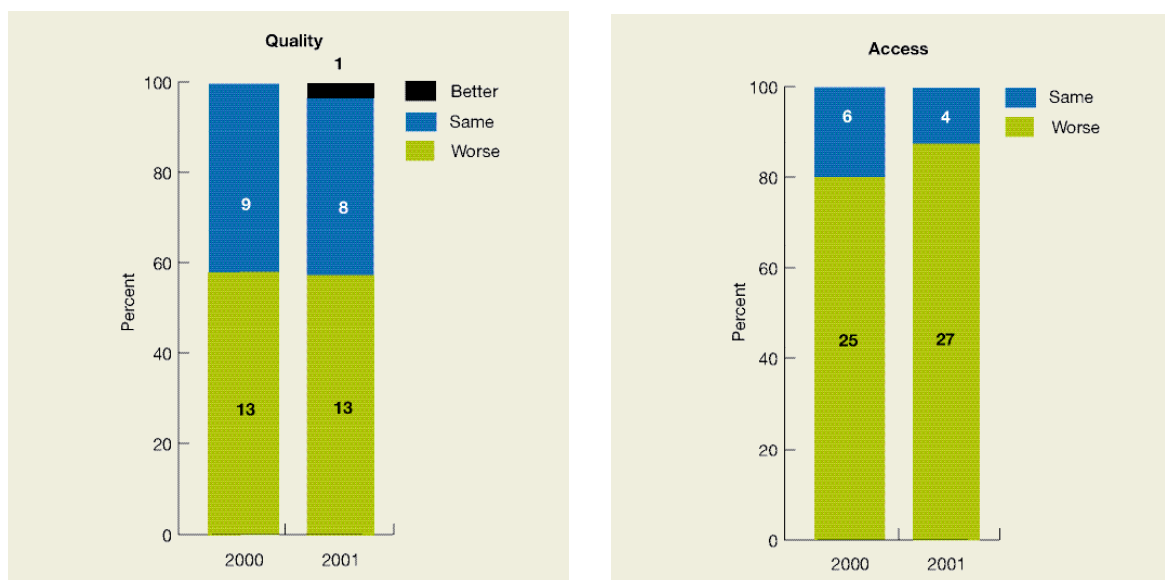
ⁱHousehold income less than Federal poverty thresholds.

ⁱⁱHousehold income 400% of Federal poverty thresholds and higher.



In the 2004 NHDR, 38 measures of quality of health care with comparable data for 2000 and 2001 are highlighted. These measures come from SEER, USRDS, MEPS, CDC AIDS Surveillance System, NVSS-N, NIS, NHIS, and NHDS. Mortality measures from vital statistics are excluded to allow focus on quality measures more directly related to health care. In the 2004 NHDR, 31 measures of access to health care with comparable data for 2000 and 2001 are also highlighted. These measures come from MEPS and NHIS. Health care utilization measures are excluded to allow focus on measures more directly related to access to care.

Figure 4.7. Poor compared with high income individuals in 2000 and 2001 on measures of quality of care (left) and access to care (right)



Better = The poor receive better quality of care or have better access to care than high income people.

Same = The poor and high income people receive about the same quality of care or access to care.

Worse = The poor receive poorer quality of care or have worse access to care than high income people.

Source: MEPS, NIS, NHIS, 2000-2001.

- Of the 38 measures of quality with comparable data for 2000 and 2001, information on income was not available for 16. Of the remaining 22 measures, the poor received lower quality of care than high income individuals for about 60% of measures in both 2000 and 2001 (Figure 4.7, left).
- Between 2000 and 2001, only 1 of these 22 measures demonstrated significant improvement among different income groups: children 19-35 months who received 1 dose of varicella vaccine improved among poor children.
- Information on income was available for all 31 of the measures of access with comparable data for 2000 and 2001. The poor had worse access to care than high income individuals for over 80% of measures in both 2000 and 2001 (Figure 4.7, right).
- Between 2000 and 2001, 4 of the 31 measures demonstrated significant improvement among high income people while none demonstrated significant improvement among the poor. Six access measures declined among the poor compared with two measures among those with high income.



Focus on Federally Supported Health Centers

Community health centers serve a disproportionate share of the Nation's poor, uninsured, and racial/ethnic minorities and exist in areas where economic, geographic, and/or cultural barriers limit access to care. These centers are authorized under the Health Centers Consolidated Care Act of 1996, which amended section 330 of the Public Health Service Act and is administered by the Health Resources and Services Administration. Within the Consolidated Health Center program, there are several types of health centers that focus on providing care to specific vulnerable populations. HRSA awards grants to community health centers under section 330(e) to increase access to comprehensive primary and preventive health care and improve the health status of underserved and vulnerable populations throughout the United States and its territories. Health centers may also receive funding to provide services to special populations including homeless individuals, migrant and seasonal farm workers, and individuals residing in public housing, through individual health center grant mechanisms authorized under sections 330(g), 330(h), and 330(i), respectively.

In 2002, 843 HRSA-funded health centers reported delivering primary and preventive care to 11.3 million patients at some 3,400 service sites under the authority of section 330 of the Public Health Service Act. Eighty-eight percent of these health centers (N=743) received section 330(e) funding and 9.9 million people were served through this CHC funding. Sixty-four percent of individuals receiving care through these community health centers (N=6.4 million) had incomes below 100% of the Federal poverty level, 33% were uninsured, 50% had public insurance, and 62% belonged to a racial or ethnic minority group. Thus, community health centers are a critical source of care for low income individuals and racial/ethnic minorities.

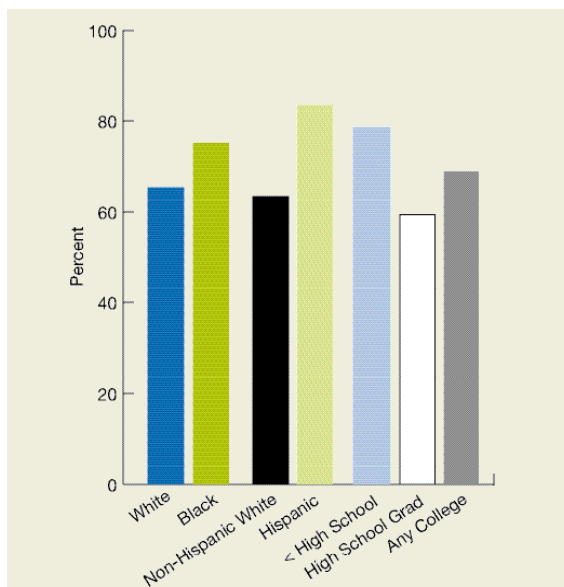
The Presidential Initiative to expand health centers will create 1,200 new or expanded health centers by the year 2006, resulting in the provision of comprehensive primary and preventive care to a projected additional 6 million people, many of whom face multiple barriers to receiving health care. As health centers expand, they will also continue to generate knowledge on improving primary and preventive care delivery at the practice and system levels among underserved populations. Such information has the potential to achieve improvements in access to and quality of care for racial/ethnic minorities and the poor.

This NHDR focuses on care provided by these CHCs with data from the 2002 HRSA Community Health Center User Survey. This survey is sponsored by HRSA and provides nationally representative data about the users of health centers receiving section 330(e) funding and the services they utilize. A total of 2,129 completed interviews were conducted from eligible users in 70 selected grantees to provide estimates for over 6 million CHC users (N=6,115,098). Representative data from health centers funded under section 330 to provide services for special populations are collected via distinct surveys.



Quality of health care. Screening for cancer is an important element of preventive care in the adult population and a critical service provided by community health centers.

Figure 4.8. Women 40 and older in community health centers who reported having a mammogram in the past 2 years by race, ethnicity, and education, 2002

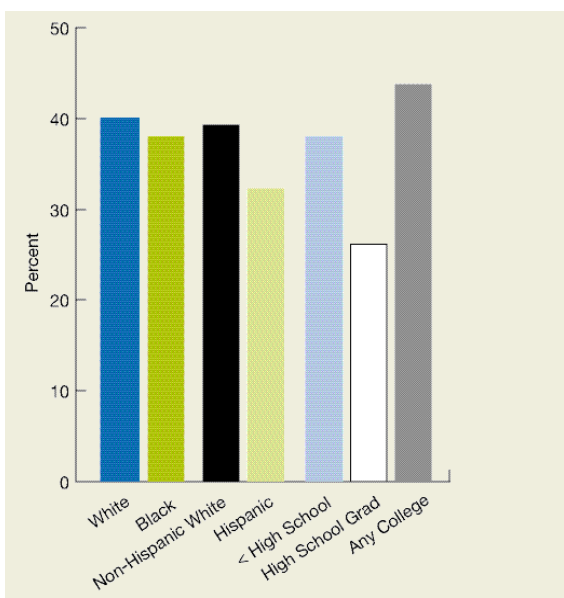


Source: HRSA Community Health Center User Survey, 2002.

Reference population: Women 40 and older who receive care in community health centers.

- In 2000, 70% of women 40 and older had a mammogram in the past 2 years, and many minorities and people of low SES were less likely to report screening (NHIS, 2000). In 2002, 70% of women 40 and older receiving care in CHCs had a mammogram in the past 2 years (Figure 4.8). Racial, ethnic, and SES differences observed in the general population were not observed among women in CHCs.

Figure 4.9. People 50 and older in community health centers who reported having a sigmoidoscopy in the past 3 years by race, ethnicity, and education, 2002



Source: HRSA Community Health Center User Survey, 2002.

Reference population: People 50 and older who receive care in community health centers.

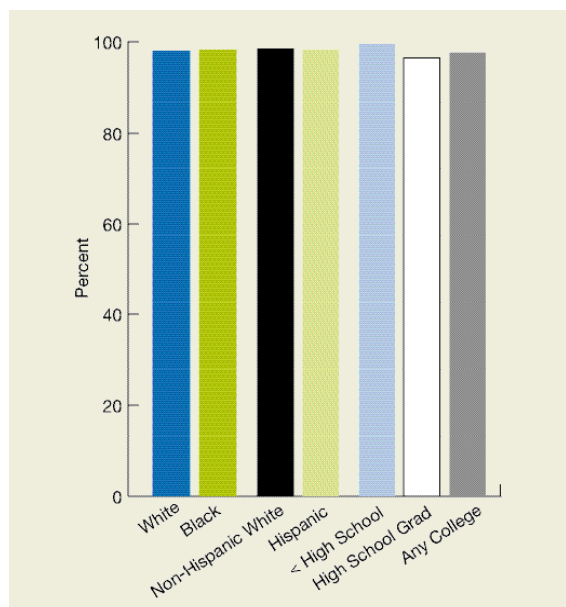
- In 2000, 39% of persons 50 and older reported ever having a sigmoidoscopy, and many minorities and people of low SES were less likely to report screening (NHIS, 2000). By comparison, 37% of people 50 and older receiving care in CHCs had a sigmoidoscopy in the past 3 yearsⁱⁱⁱ (Figure 4.9). Proportions were similar among all racial, ethnic, and education groups.

ⁱⁱⁱNote that the Community Health Center User Survey asks about sigmoidoscopy *in the past 3 years* while the NHIS asks about *ever* having sigmoidoscopy. Hence, it should be expected that the CHC rate would be lower than the NHIS rate.



Access to health care. An important element of access to care is having a usual source of care. Community health centers are the usual source of care for many low income and minority individuals.

Figure 4.10. People in community health centers who have a usual source of care by race, ethnicity, and education, 2002



Source: HRSA Community Health Center User Survey, 2002.

Reference population: People who receive care in community health centers.

- In 2001, 88% of the civilian noninstitutionalized population reported a source of ongoing care. Many racial and ethnic minorities and persons of lower SES were less likely to report such a source of care (NHIS, 2001). By comparison, in 2002, 98% of people receiving care in HRSA-funded community health centers reported a usual source of care. Proportions were similar among all racial and ethnic groups (Figure 4.10).

These data provide empiric evidence that HRSA-funded community health centers are successful in fulfilling their mission to improve access to care for millions of Americans and provide quality care to the patients they serve, regardless of race/ethnicity or socioeconomic status. Furthermore, racial/ethnic minority groups of users met or exceeded the Healthy People 2010 objectives for receiving mammography (70%) and for having a usual source of care (90%). These accomplishments may reflect health centers' longstanding community-oriented strategy of delivering health care and their participation in quality improvement initiatives such as the Health Disparities Collaboratives.



Women

Census 2000 counted 140 million females, 51% of the U.S. population, of whom 40 million are members of racial or ethnic minority groups.²⁰ By 2050, it is projected that just under half of females in the United States will be members of racial or ethnic minority groups.²¹ The ratio of males to females is highest at birth, when male infants outnumber female infants, and gradually declines with age due to higher male mortality rates. Among Americans 85 and older, women outnumber men by more than 2 to 1.²² Poverty disproportionately affects women; almost 13 million women lived in households with income below the Federal poverty level in 2001.²³

Women in the United States have a life expectancy 5 years longer than men and lower age-adjusted death rates than men for 13 of the 15 leading causes of death.²⁴ However, women are more likely than men to report having arthritis, asthma, autoimmune diseases, and depression.²³ Overall, many women's health needs are inadequately addressed.²⁵ Among women, racial and ethnic differences in mortality and health status are observed. Black women have higher death rates than white women due to heart disease, cancer, and stroke while Hispanic, API, and AI/AN women have lower death rates due to these conditions.²³ Black and Hispanic women are also more likely to report fair or poor overall health and having diabetes. Poor or near poor women are more likely to report fair or poor overall health; limitations of activity; and having anxiety or depression, arthritis, asthma, diabetes, hypertension, obesity, and osteoporosis.²⁶

In general, gender differences in quality of care are small. However, significant gender differences in cardiovascular care have been demonstrated. Among women, racial, ethnic, and socioeconomic differences in quality of care exist. Racial and ethnic differences are noted in receipt of cardiovascular procedures, cancer screening, and management of fibroids.²⁷ Socioeconomic differences are noted in receipt of Pap tests and mammograms.²⁸ Women are more likely to obtain preventive services than men.²³ Among women, racial, ethnic, and socioeconomic differences in access to care are observed. Black women are more likely than white women to report forgoing needed physician care; and Hispanic women are more likely than non-Hispanic white women to report lack of health insurance and coverage for dental and vision care, not having a regular health care provider, not seeing a specialist when needed, and problems communicating with physicians.²⁹ Poor and near poor women are more likely than high income women to report lack of health insurance, dissatisfaction with their health plan when insured, and not having a usual source of care.²⁸

Many measures of relevance to women are tracked in the NHDR. Findings presented here seek to highlight conditions and topics of particular importance to quality of and access to health care for women including:

- Cancer
- Diabetes
- Heart disease
- Osteoporosis
- Maternity care
- Usual source of care

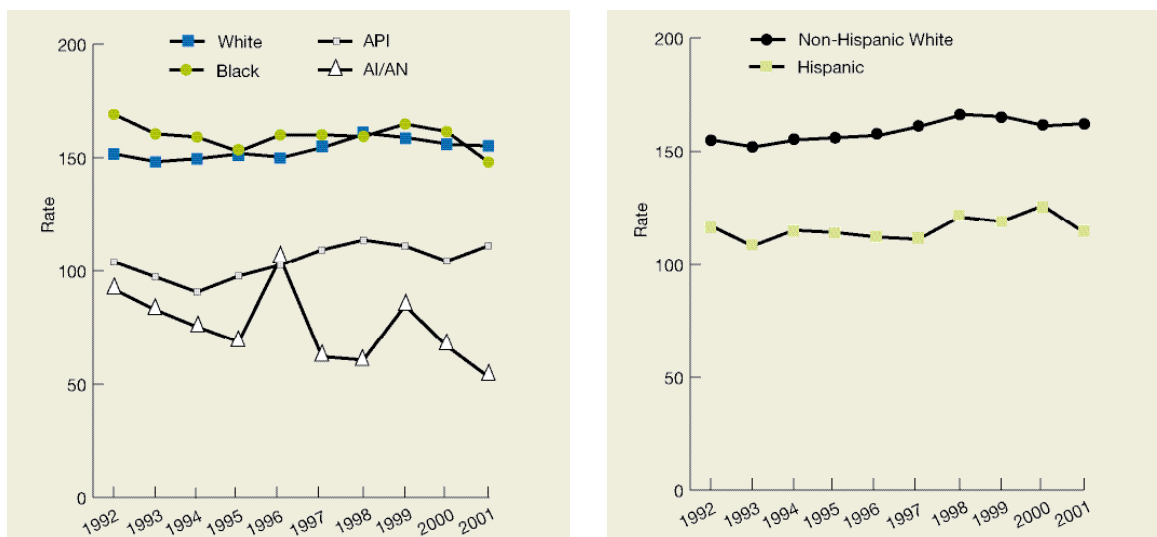


Quality of Health Care

Cancer. An estimated 670,000 women in the United States will be diagnosed with cancer in 2004. Cancer incidence has been stable among men since 1995 but continues to rise among women. An estimated 270,000 women in the United States will die from cancer in 2004, making it the second leading cause of death after heart disease. Breast cancer is the most common cancer affecting women, accounting for a third of new cancers among women each year.³⁰

Access to appropriate cancer screening services for all populations is a core element of efforts to reduce cancer health disparities.³¹ Mammography is an effective means of reducing the incidence of late stage breast cancer and mortality caused by this cancer. In the 2003 NHDR, mammography was received less often by black, Asian, and AI/AN women compared with white women, by Hispanic women compared with non-Hispanic white women, and by low income and less educated women compared with more affluent women. In the 2004 NHDR, findings related to late stage breast cancer are highlighted.

Figure 4.11. Age-adjusted rate of late stage (stage II or higher) breast cancer per 100,000 women age 40 and older by race (left) and ethnicity (right), 1992-2001



Source: SEER, 1992-2001.

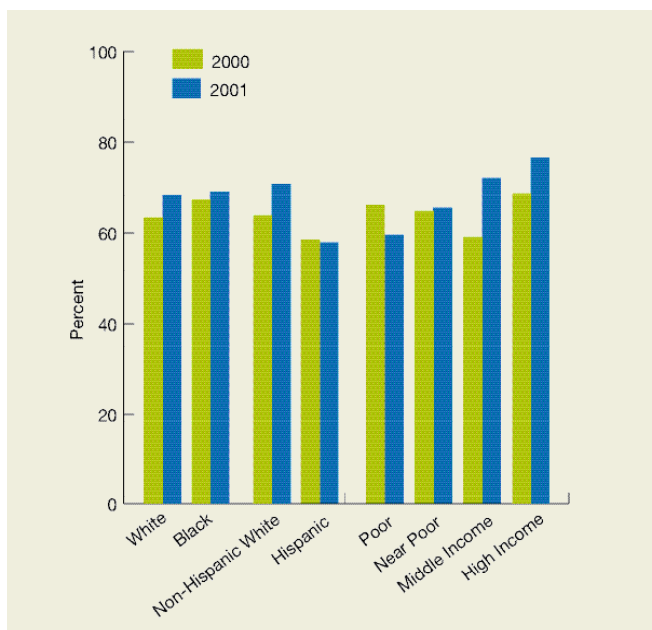
Reference population: Women age 40 and older.

- In all years, rates of late stage breast cancer were lower among API and AI/AN women compared with white women and among Hispanic women compared with non-Hispanic white women (Figure 4.11). Black-white differences were not significant.
- Between 1992 and 2001, rates of late stage breast cancer decreased among black and AI/AN women.



Diabetes. In 2002, over 9.3 million women in the United States had diabetes.³² Women are at greater risk than men for some complications related to diabetes, including diabetic ketoacidosis and cardiovascular disease due to diabetes.³³ In addition, poorly controlled diabetes during early pregnancy increases the risk for spontaneous abortion and major birth defects.³² High quality management of diabetes includes hemoglobin A1c determination, lipid management, eye examination, foot examination, and influenza immunization.^{34 35} Findings related to receipt of retinal eye examination by diabetic women are presented here. In 2001, diabetic men and women were equally likely to have a retinal eye examination in the past year (MEPS, 2001).

Figure 4.12. Women with diabetes who had a retinal eye exam in the past year by race, ethnicity, and income, 2000-2001



Source: Medical Expenditure Panel Survey, 2000-2001.

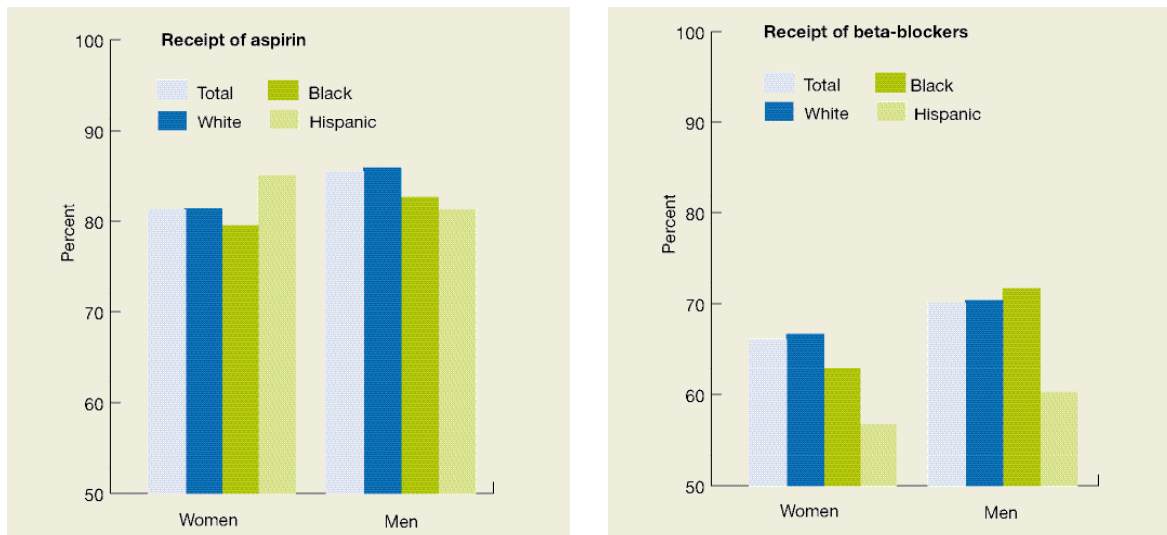
Reference population: Civilian noninstitutionalized women with diabetes age 18 and older.

- In 2001, the proportion of adults with diabetes who had a retinal eye examination in the past year was lower among Hispanic compared with non-Hispanic white women and among poor and near poor compared with high income women (Figure 4.12). Black-white differences were not significant.
- Between 2000 and 2001, rates of retinal eye examination improved among middle income diabetic women but did not change significantly among any racial or ethnic group.



Heartdisease. Each year, about half a million women die of cardiovascular disease including 250,000 who die of heart attacks and 90,000 who die of stroke.³⁶ Although heart disease is the leading cause of death among both women and men, gender differences in cardiovascular care have been demonstrated and may relate to gender differences in disease presentation. Moreover, although major risk factors for cardiovascular disease can often be prevented or controlled through lifestyle changes, physicians are less likely to counsel women than men about diet, exercise, and weight reduction.³⁷ After a first heart attack, women are less likely than men to receive diagnostic and therapeutic procedures³⁸ and cardiac rehabilitation³⁹ and more likely to die or have a second heart attack.⁴⁰ Measures of quality of care for heart disease tracked in the NHDR include screening and counseling for cardiovascular risk factors, acute treatment of myocardial infarction and heart failure, and chronic management of hypertension and congestive heart failure. Findings related to receipt of aspirin and beta-blockers when hospitalized for acute myocardial infarction are highlighted here.

Figure 4.13. Elderly Medicare beneficiaries hospitalized for acute myocardial infarction who received aspirin (left) and beta-blockers (right) within 24 hours of admission by gender and race/ethnicity, 2000-2001



Source: CMS Quality Improvement Organization Program, 2000-2001.

Reference population: Medicare beneficiaries age 65 and older hospitalized for acute myocardial infarction.

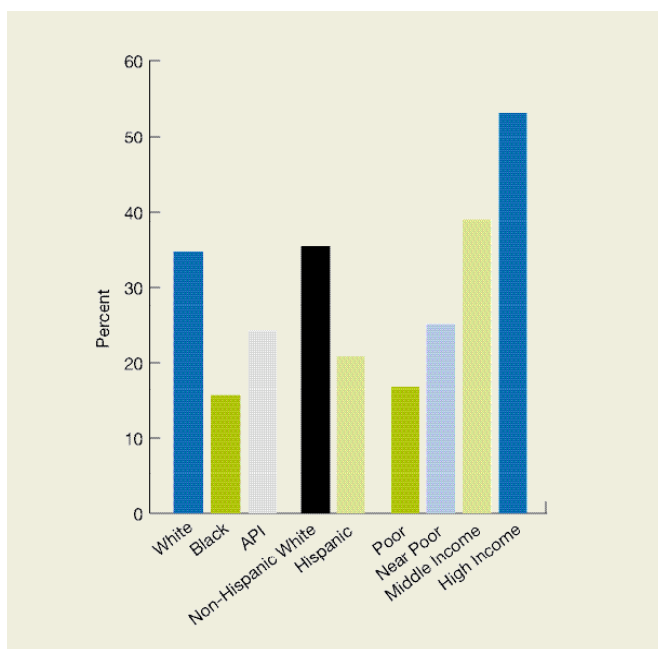
Note: White and Black are non-Hispanic groups.

- In 2001, elderly female Medicare beneficiaries hospitalized for acute myocardial infarction were less likely than male beneficiaries to receive aspirin within 24 hours of admission. Among elderly female Medicare beneficiaries, the proportion who received aspirin within 24 hours of admission was similar among non-Hispanic white, black, and Hispanic women (Figure 4.13, left).
- In 2001, elderly female Medicare beneficiaries hospitalized for acute myocardial infarction were also less likely than male beneficiaries to receive beta-blockers within 24 hours of admission. Among both elderly female and male Medicare beneficiaries, the proportions who received beta-blockers within 24 hours of admission were lower among Hispanics compared with non-Hispanic whites (Figure 4.13, right). Black-white differences were not significant.



Osteoporosis. Osteoporosis is a disease characterized by loss of bone tissue that increases the risk of fractures of the hip, spine, and wrist. About 10 million people in the United States have osteoporosis and another 34 million with low bone mass are at risk for developing this disease. Because older women are at highest risk for osteoporosis, the U.S. Preventive Services Task Force recommends routine screening of women 65 and older for osteoporosis. White and Asian women are at greater risk for osteoporosis than black and Hispanic women.⁴¹

Figure 4.14. Elderly female Medicare beneficiaries who reported ever being screened for osteoporosis with a bone mass or bone density measurement by race, ethnicity, and income, 2000



Source: Medicare Current Beneficiary Survey, 2000.

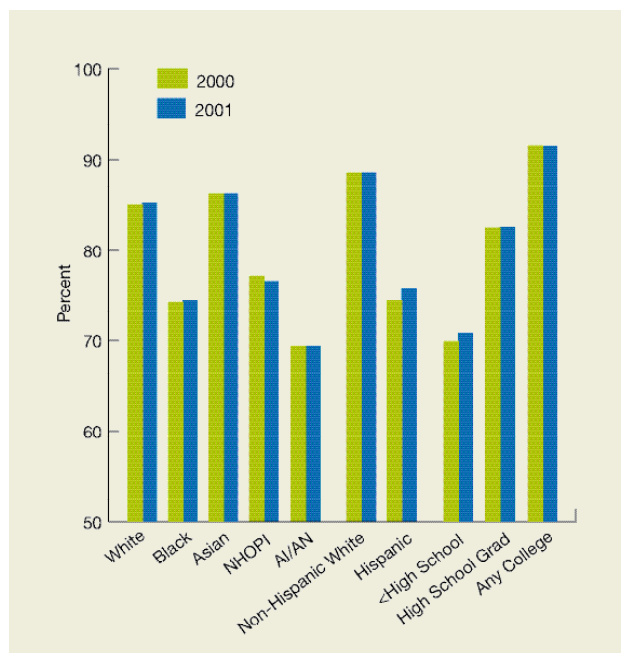
Reference population: Female Medicare beneficiaries age 65 and older living in the community.

- In 2000, the proportion of elderly female Medicare beneficiaries who were ever screened for osteoporosis with a bone mass or bone density measurement was lower among black compared with white women; among Hispanic compared with non-Hispanic white women; and among poor, near poor, and middle income compared with high income women (Figure 4.14).



Maternity care. Childbirth and reproductive care are the most common reasons for women of childbearing age to use health care. With more than 11,000 births each day in the United States, childbirth is the most common reason for hospital admission.⁴² Comprehensive prenatal care may prevent complications of pregnancy and reduce preterm labor and neonatal mortality.⁴³ Given that birth outcomes may have lifetime effects, prenatal care is highly cost effective.⁴⁴ Findings related to initiation of prenatal care in the first trimester by pregnant women are presented here.

Figure 4.15. Mothers with prenatal care in the first trimester by race, ethnicity, and education, 2000-2001



Source: National Vital Statistics System - Natality, 2000-2001.

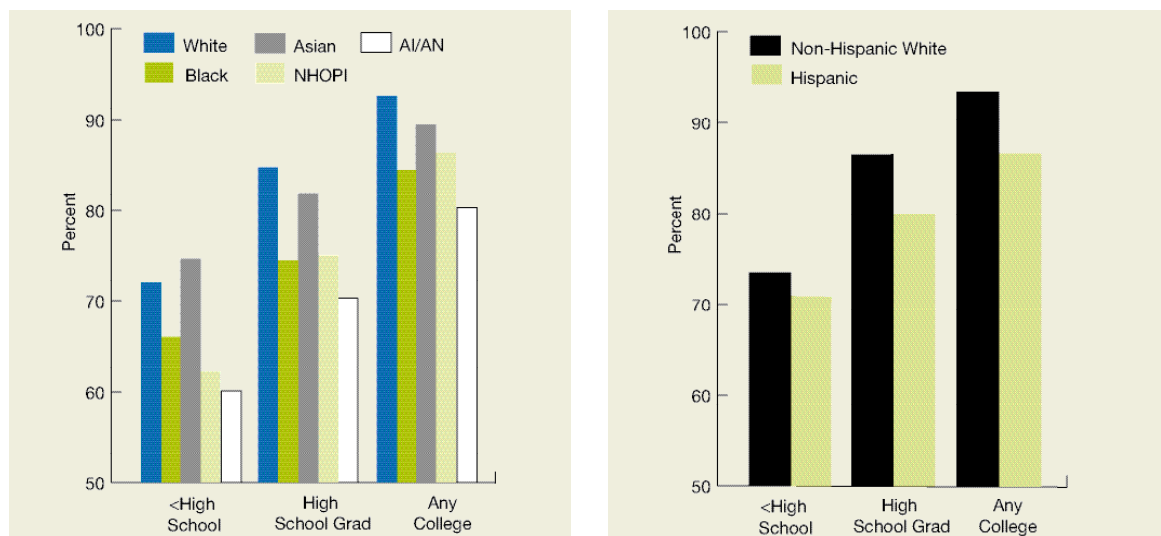
Reference population: Women with live births.

- In both 2000 and 2001, the proportion of mothers who initiated prenatal care in the first trimester was lower among black, NHOPI, and AI/AN women compared with white women; lower among Hispanic compared with non-Hispanic white women; and lower among women with less than a high school education or high school graduates compared with women with any college education (Figure 4.15).
- Between 2000 and 2001, rates of prenatal care in the first trimester did not change significantly among any racial, ethnic, or education group.



Information about income is not typically collected on birth certificates, so education is commonly used as a proxy for SES. Racial and ethnic minorities have disproportionately less education than whites. To distinguish the effects of race, ethnicity, and education on quality of health care, measures are presented by level of education.

Figure 4.16. Mothers with prenatal care in the first trimester by race (left) and ethnicity (right) stratified by education, 2001



Source: National Vital Statistics System - Natality, 2001.

Reference population: Women with live births.

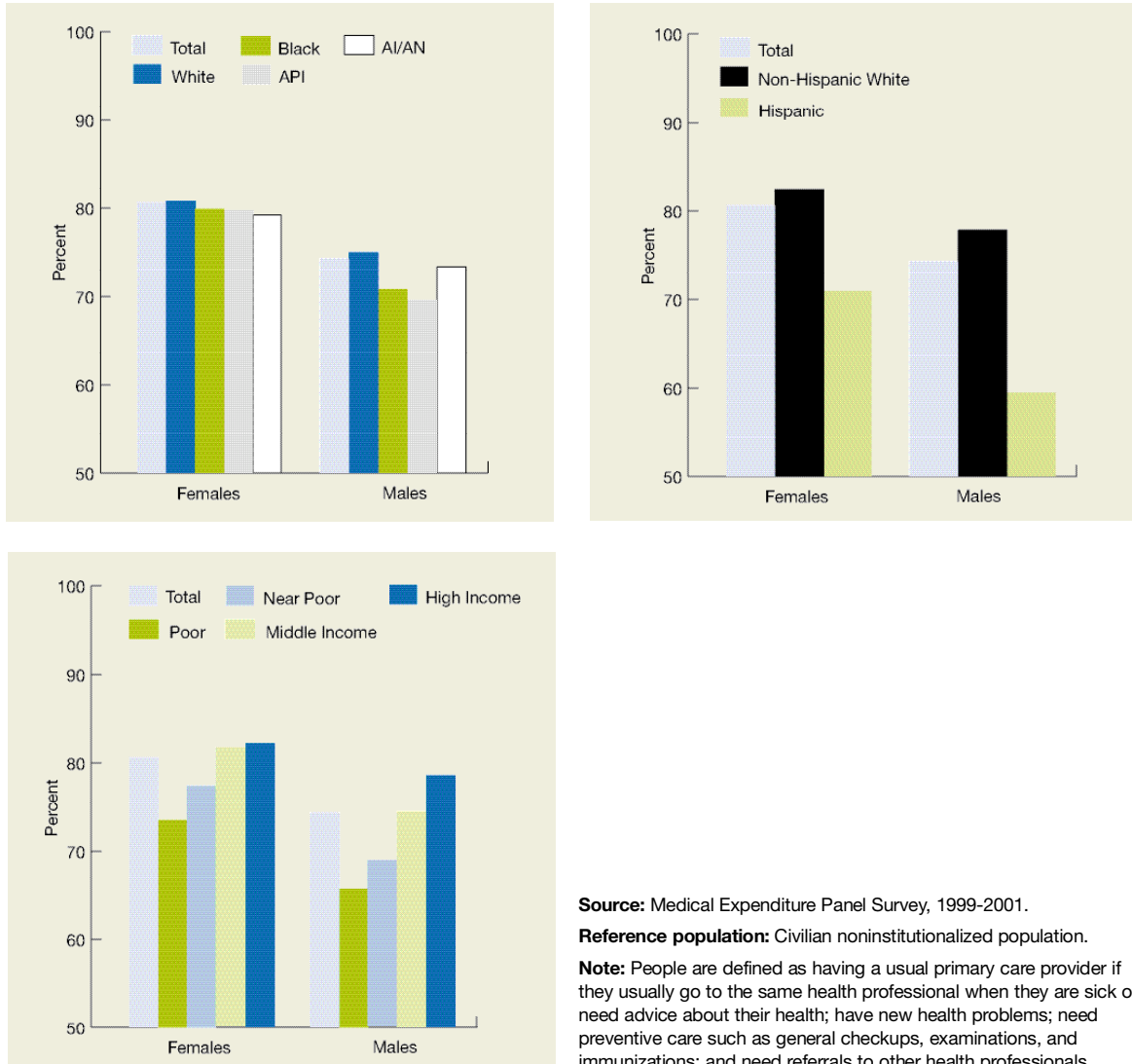
- Education explains some but not all of the differences in health care among women by race and ethnicity.
- Racial and ethnic differences in mothers who initiate prenatal care in the first trimester tend to persist among women with similar education (Figure 4.16).
- Only college educated whites and non-Hispanic whites achieved the Healthy People 2010 (HP2010) goal of 90% of mothers receiving prenatal care in the first trimester.



Access to Health Care

Usual source of care. Patients with a usual source of care are more likely to receive blood pressure and cholesterol monitoring, flu shots, Pap tests, and mammograms.⁴⁵ Having a primary care provider as one's usual source of care also leads to lower long-term health care costs.⁴⁶

Figure 4.17. People with a usual primary care provider by gender and race (top left), ethnicity (top right), and income (bottom left), 2001



Source: Medical Expenditure Panel Survey, 1999-2001.

Reference population: Civilian noninstitutionalized population.

Note: People are defined as having a usual primary care provider if they usually go to the same health professional when they are sick or need advice about their health; have new health problems; need preventive care such as general checkups, examinations, and immunizations; and need referrals to other health professionals.

- In 2001, females were more likely to have a usual primary care provider than males (Figure 4.17).
- Among both females and males, the proportions with a usual primary care provider were lower among Hispanics compared with non-Hispanic whites and among poor and near poor compared with high income people. Racial differences were not significant.



Children

Census 2000 counted 72.3 million Americans, or 26% of the U.S. population, under age 18.⁴⁷ In 2001, over 4 million babies were born in the United States.⁴⁸ Racial and ethnic minorities account for almost 40% of all children.⁴⁹ In 1999, almost 17% of children lived in families with incomes below the poverty level compared with 11% of adults.⁵⁰

In 2002, black children and American Indian or Alaska Native children had death rates about 1.5 to 2 times higher than white children. Black infants were more than twice as likely to die during their first year than white infants.⁵¹ In 1996, Hispanic children were over twice as likely to report fair or poor health than non-Hispanic white children.⁵²

Quality of health care among children varies by race, ethnicity, and SES.⁵³ Differences have been observed in childhood immunization,⁵⁴ management of asthma,⁵⁵ and evaluation and treatment for attention-deficit/hyperactivity disorder.⁵⁶ Access to health care among children also varies by race, ethnicity, and SES. Rates of uninsurance and public coverage;⁵⁷ getting a routine appointment as soon as wanted, receiving needed care, and patient experiences during care;⁵⁸ rating of health care;⁵⁹ and health care utilization and expenditures⁶⁰ differ among children by race, ethnicity, and SES.

Many measures of relevance to children are tracked in the NHDR. Findings presented here seek to highlight conditions and topics of particular importance to children's quality of and access to health care including:

- Vaccinations
- Obesity
- Asthma
- Patient safety
- Health insurance
- Patient-provider communication

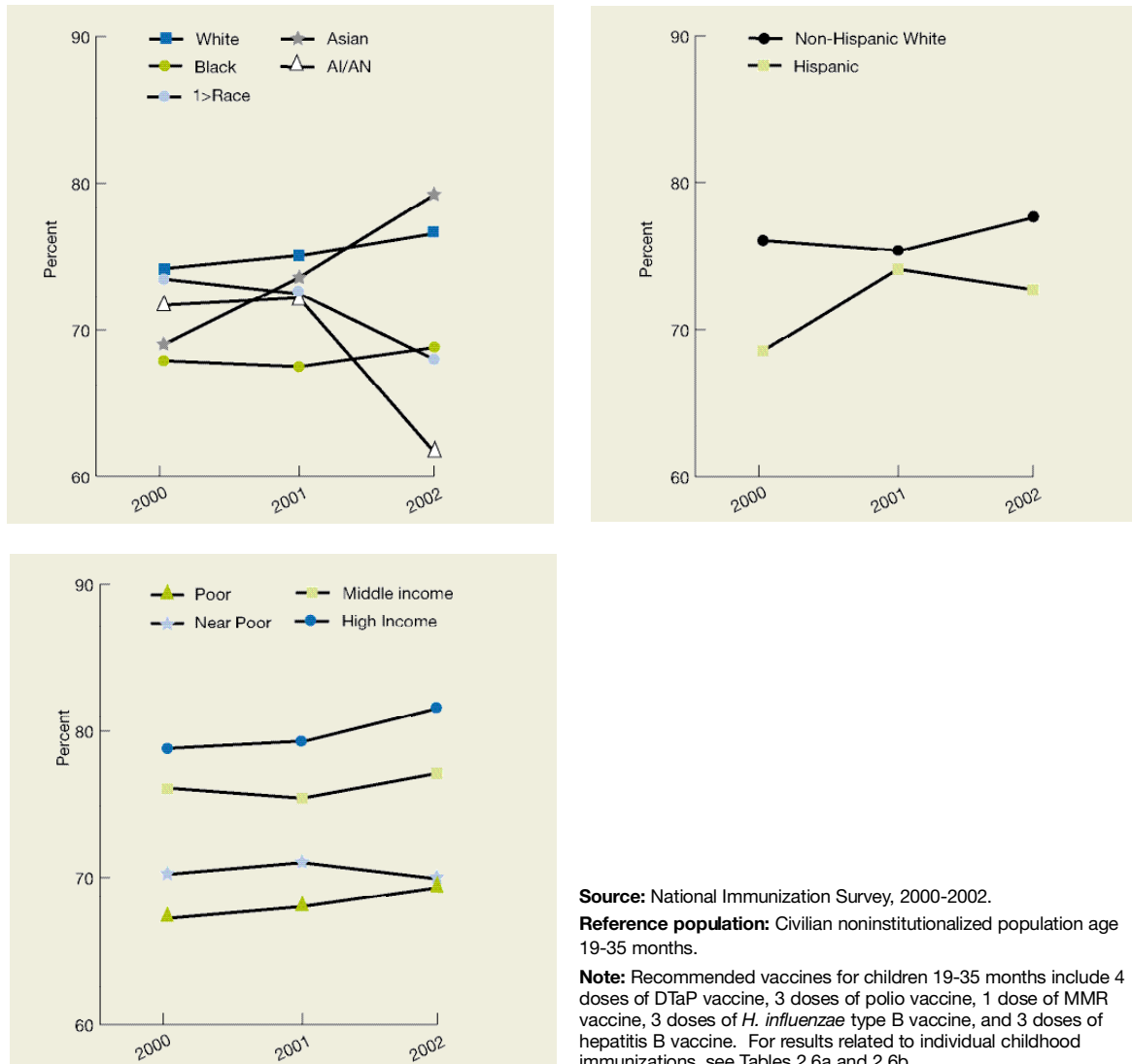
In addition, the final section of this chapter, which discusses individuals with special health care needs, focuses on children this year. In that section, data from the 2001 National Survey of Children with Special Health Care Needs are presented to assess disparities among this group of children.



Quality of Health Care

Vaccinations. Childhood vaccinations protect recipients from illness and disability and others in the community who cannot be vaccinated, such as small children and people who are immunosuppressed. They are important for reducing mortality and morbidity in populations.

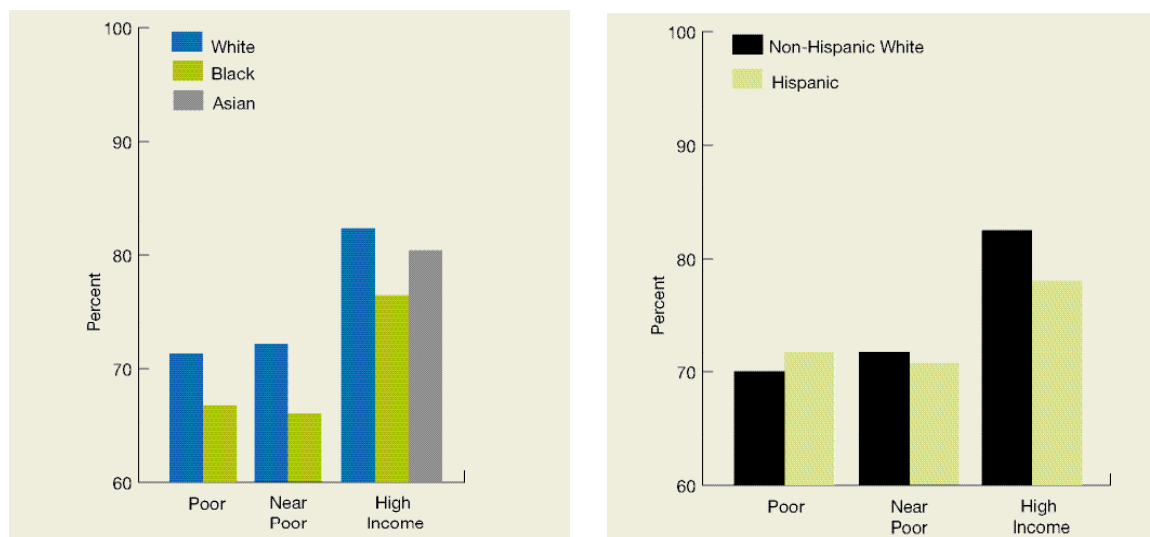
Figure 4.18. Children age 19-35 months who received all recommended vaccines by race (top left), ethnicity (top right), and income (bottom left), 2000-2002



- In all 3 years, the proportion of children who received all recommended vaccines was lower among black compared with white children; Hispanic compared with non-Hispanic white children; and poor, near poor, and middle income compared with high income children (Figure 4.18).
- Between 2000 and 2002, vaccination improved among Asian, Hispanic, and high income children.



Figure 4.19. Children age 19-35 months who received all recommended vaccines by race (left) and ethnicity (right) stratified by family income, 2002



Source: National Immunization Survey, 2002.

Reference population: Civilian noninstitutionalized population age 19-35 months.

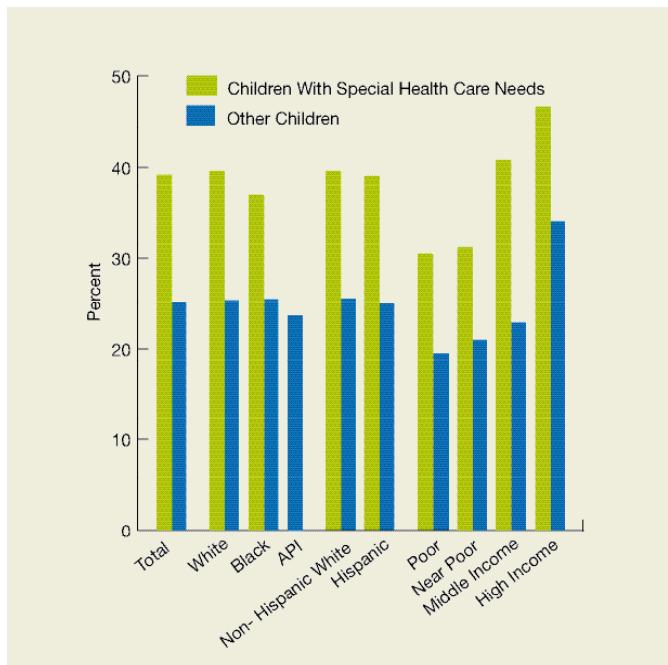
Note: Recommended vaccines for children 19-35 months include 4 doses of DTaP vaccine, 3 doses of polio vaccine, 1 dose of MMR vaccine, 3 doses of *H. influenzae* type B vaccine, and 3 doses of hepatitis B vaccine.

- Only high income whites, Asians, and non-Hispanic whites achieved the HP2010 goal of 80% of children receiving all recommended vaccines (Figure 4.19).



Obesity and overweight. Childhood obesity is a risk factor for diabetes, hypertension, and high cholesterol.⁶¹ In the past 20 years, the prevalence of overweight (defined as age-gender specific body mass index at 95th percentile or higher) among children ages 6-11 has doubled, and the prevalence among adolescents ages 12-19 has tripled. In 1999-2000, 27% of Mexican boys and 18% of non-Hispanic black boys were overweight compared with 16% of boys ages 6-11 overall; 20% of Mexican girls and 22% of non-Hispanic black girls were overweight compared with 15% of girls overall.⁴⁸ Lack of physical activity is a major contributor to childhood obesity, and routine promotion of physical activity among young people is recommended.⁶²

Figure 4.20. Children ages 2 to 17 whose parents reported advice from a doctor or other health provider about amount and kind of physical activity by race, ethnicity, and income, 2001



Source: Medical Expenditure Panel Survey, 2001.

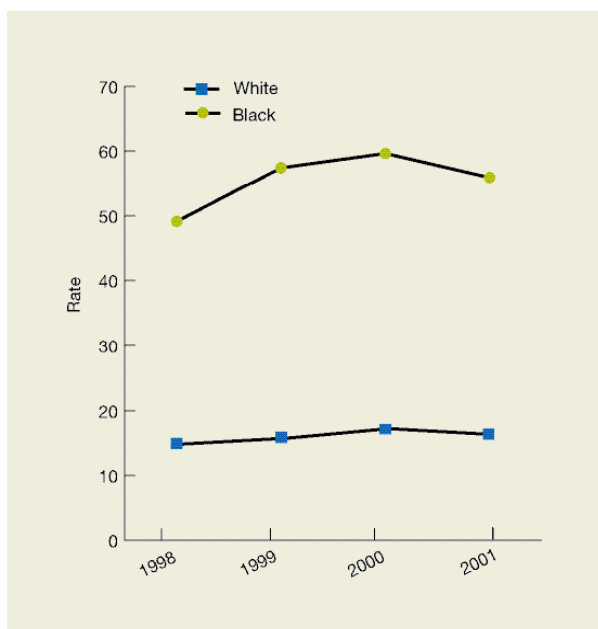
Reference population: Civilian noninstitutionalized population age 2-17.

- In 2001, the proportion of parents with children 2 to 17 who had advice from a doctor or other health provider about amount and kind of physical activity was higher among parents of children with special health care needs (Figure 4.20).
- Among both CSHCN and other children, report of advice about physical activity was lower among parents of poor and near poor compared with high income children. Racial and ethnic differences were not significant.



Asthma. Asthma is one of the most prevalent chronic diseases affecting children. In 2002, 8.6% of black and 5.2% of white children and 8% of poor and 5.5% of non-poor children had an asthma attack.⁶³ Good asthma management, including anti-inflammatory medicine and a written action plan, can prevent asthma attacks and reduce use of emergency rooms and hospitals.

Figure 4.21. Hospital admissions for asthma per 10,000 children by race, 1998-2001



Source: National Hospital Discharge Survey, 1998-2001.

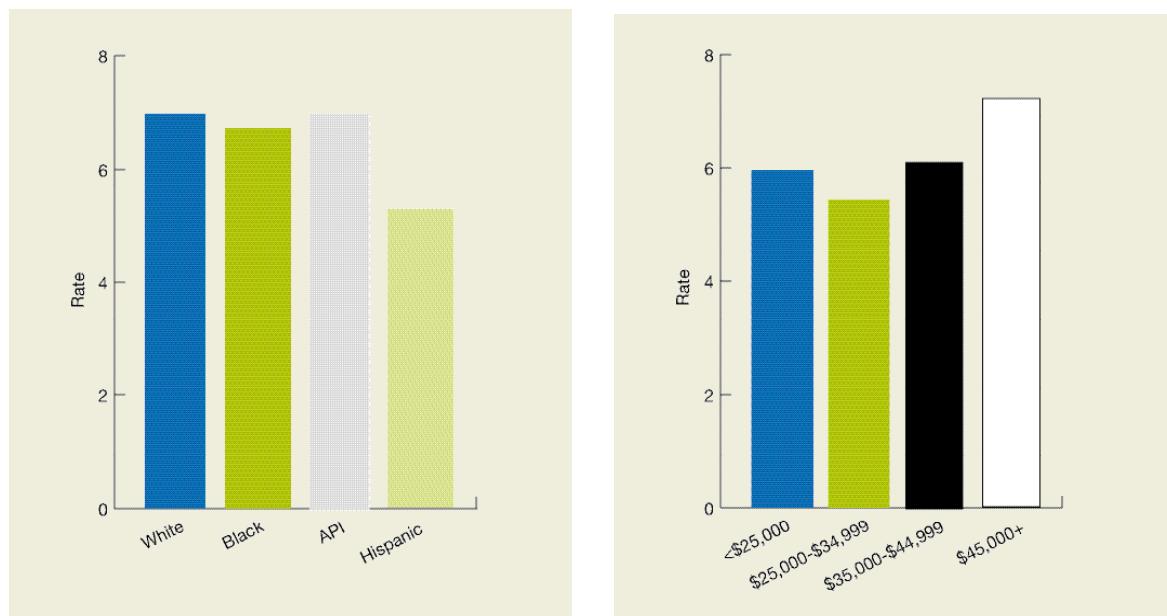
Reference population: Children age 0-17.

- In all 3 years, rates of hospital admissions for asthma were higher among black children than white children (Figure 4.21).
- Between 1998 and 2001, rates of hospitalization for asthma did not change significantly among black or white children.



Patient safety. Measures of patient safety tracked in the NHDR are part of AHRQ's Patient Safety Indicators.⁶⁴ Birth trauma counts injuries to full-term infants born alive in the hospital.

Figure 4.22. Birth trauma injury per 1,000 live births by race/ethnicity (left) and area income (right), 2001



Source: HCUP State Inpatient Databases disparities analysis file, 2001.

Reference population: Live births.

Note: White, Black, and API are non-Hispanic groups.

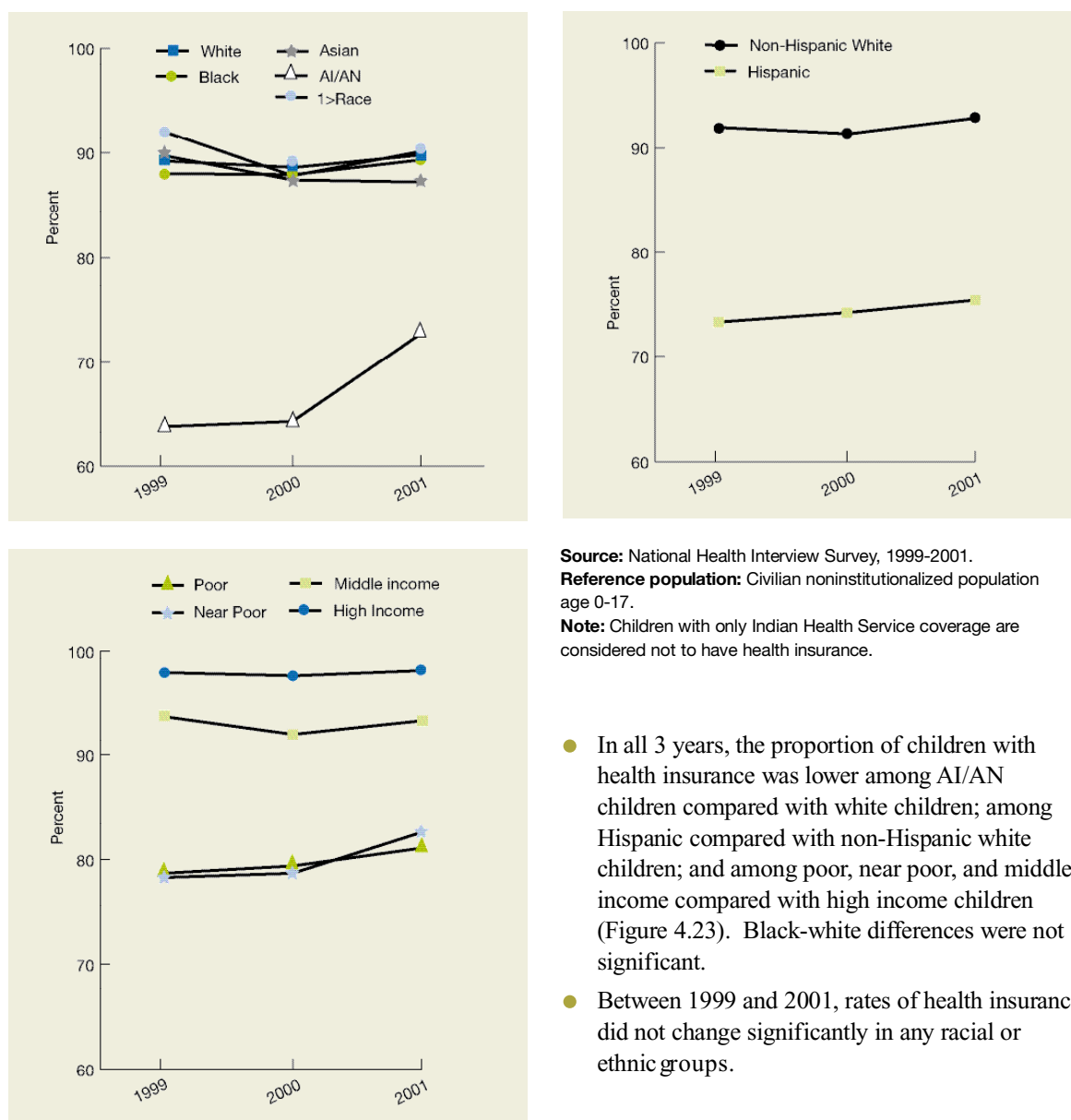
- In 2001, rates of birth trauma were lower among Hispanic compared with non-Hispanic white children and among residents of poorer ZIP Codes compared with residents of ZIP Codes with income of \$45,000 and over (Figure 4.22). Black-white differences were not significant.



Access to Health Care

Health insurance. Health insurance greatly facilitates access to health care. Uninsured Americans are more likely to report needing but not receiving medical care⁶⁵ and tend to receive fewer preventive and therapeutic services.⁶⁶ During the late 1990's, insurance coverage among children increased due to State insurance expansions for low income children and the State Children's Health Insurance Program (SCHIP).⁶⁰

Figure 4.23. Children with health insurance by race (top left), ethnicity (top right), and income (bottom left), 1999-2001

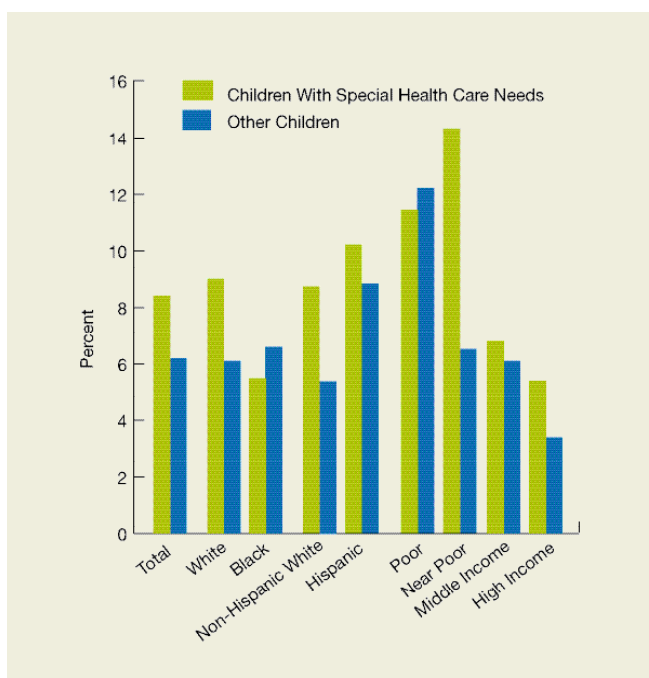


- In all 3 years, the proportion of children with health insurance was lower among AI/AN children compared with white children; among Hispanic compared with non-Hispanic white children; and among poor, near poor, and middle income compared with high income children (Figure 4.23). Black-white differences were not significant.
- Between 1999 and 2001, rates of health insurance did not change significantly in any racial or ethnic groups.



Patient-provider communication. Effective patient-provider communication involves listening, asking questions, explaining information, and showing respect for patient concerns. Overall, parents are less likely to report problems communicating with their child's provider than adults in general report about communicating with their own providers. For example, 10.4% of adults report that their provider sometimes or never listens carefully while only 6.8% of parents report that their child's providers sometimes or never listen carefully (MEPS, 2001).

Figure 4.24. Children whose parents report that their child's providers sometimes or never listen carefully to them by race, ethnicity, and income, 2001



Source: Medical Expenditure Panel Survey, 2001.

Reference population: Civilian noninstitutionalized parents with children age 0-17.

- In 2001, the proportion of parents who reported that their child's providers sometimes or never listen carefully to them was higher among parents of CSHCN (Figure 4.24).
- Among both CSHCN and other children, reports of providers who sometimes or never listen carefully were higher among poor and near poor children compared with high income children.
- Among children without special health care needs, report of providers who sometimes or never listen carefully was also higher among Hispanic compared with non-Hispanic white children. Black-white differences were not significant.



Elderly

The elderly (age 65 and over) numbered 35.6 million in 2002, an increase of 3.3 million, or 10.2%, since 1992. About 1 in every 8 Americans is in this age group. By the year 2030, the elderly population will more than double to 71.5 million. Older women outnumber older men (20.8 million vs. 14.8 million). Members of minority groups are projected to represent 26.4% of the elderly in 2030, up from 16.4% in 2000. About 3.6 million elderly lived below the poverty level in 2002, corresponding to a poverty rate of 10.4%. Another 2.2 million or 6.4% of the elderly were classified as near poor (income between the poverty level and 125% of this level).⁶⁷

On average, 65-year-olds can expect, to live an additional 18.1 years. In 2003, 38.6% of noninstitutionalized older persons assessed their health as excellent or very good compared with 66.6% of persons ages 18-64, and older blacks and Hispanics were less likely to rate their health as excellent or good than older whites. Most older people have at least one chronic condition. In 1997, more than half of the elderly reported a disability and over a third reported a severe disability.⁶⁷

The Medicare program provides core health insurance to nearly all elderly Americans and reduces many financial barriers to acute and post-acute care services faced by the elderly. The Medicare Prescription Drug Improvement and Modernization Act of 2003 added important new prescription drug and preventive benefits to Medicare and provides extra financial help to people with low incomes. Consequently, differences in access to and quality of health care tend to be smaller among Medicare beneficiaries than among younger populations. However, racial, ethnic, and socioeconomic differences are still observed among the elderly.

Surveys of the general population often do not include enough elderly to examine racial, ethnic, or SES differences in health care. Consequently, this report relies upon data from the Medicare Current Beneficiary Survey to examine disparities in access to and quality of care.

Many measures of relevance to the elderly are tracked in the NHDR. Findings presented here seek to highlight conditions and topics of particular importance to quality of and access to health care among elderly Americans including:

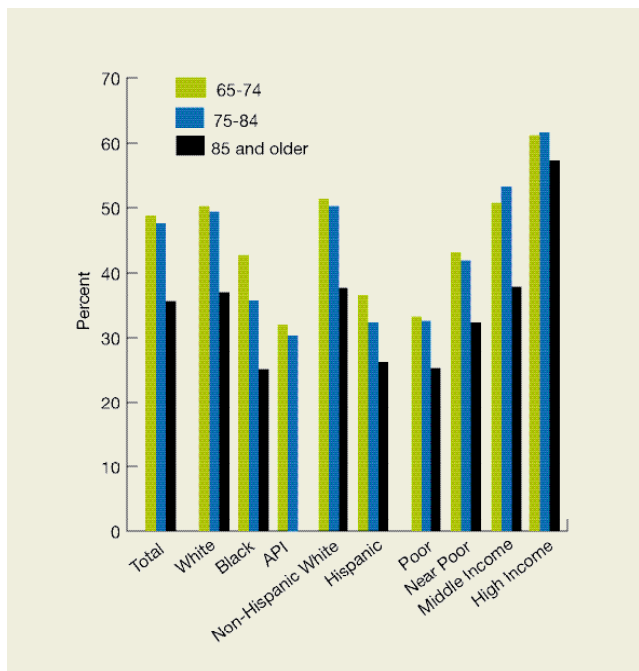
- Cancer
- Vaccinations
- Usual source of care
- Patient perceptions of need



Quality of Health Care

Cancer. Among the elderly, high quality health care includes screening for cancer and cardiovascular risk factors. Of all cancers that can be prevented by screening, colorectal cancer is the most deadly, causing over 55,000 deaths each year. Screening for colorectal cancer with fecal occult blood testing or sigmoidoscopy is an effective means of reducing the incidence of late stage disease and mortality caused by this cancer. The 2003 NHDR showed that while the elderly are more likely to receive colorectal cancer screening than younger age groups, racial, ethnic, and socioeconomic differences exist (NHIS, 2000). This year, more robust estimates from the MCBS are highlighted.

Figure 4.25. Elderly Medicare beneficiaries who reported ever having sigmoidoscopy or colonoscopy by race, ethnicity, and income, 2000



Source: Medicare Current Beneficiary Survey, 2000.

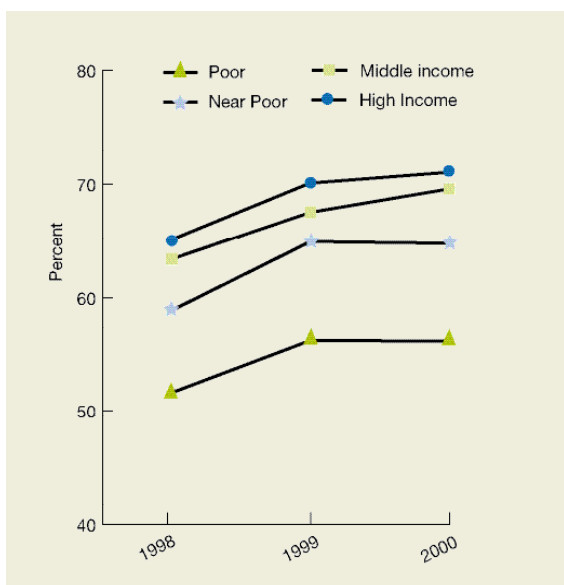
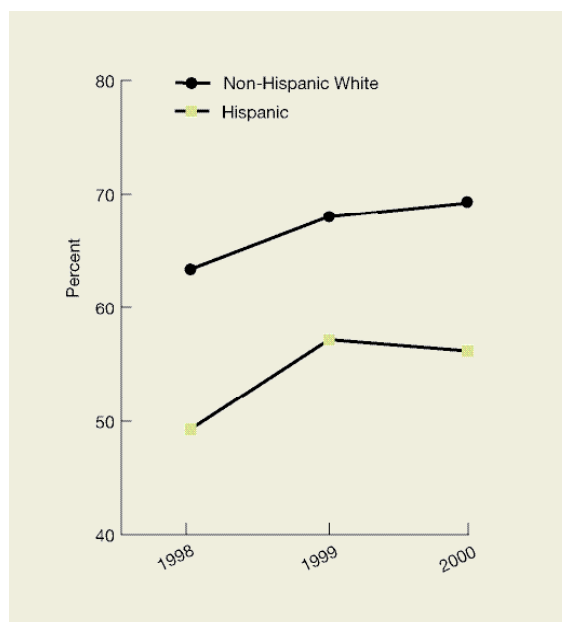
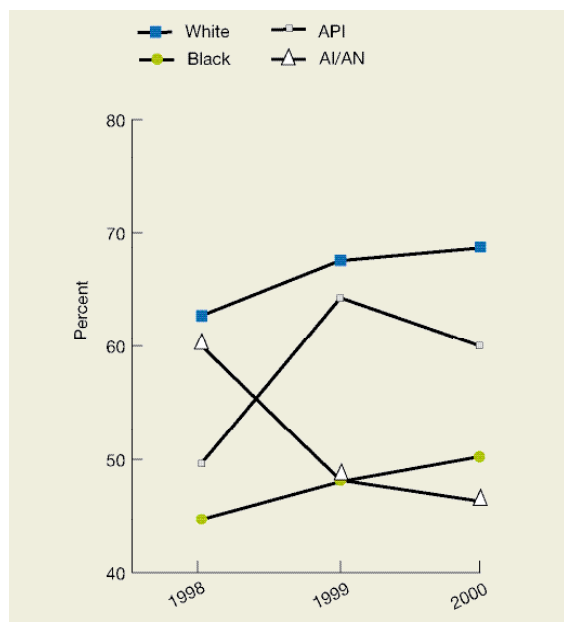
Reference population: Medicare beneficiaries age 65 and older living in the community.

- In 2000, the proportion of elderly Medicare beneficiaries who reported ever having sigmoidoscopy or colonoscopy was lower among those age 85 and older than among those age 65 to 74.
- Within all age groups, receipt of sigmoidoscopy or colonoscopy was lower among black compared with white elderly and among poor, near poor, and middle income compared with high income elderly (Figure 4.25). In addition, receipt of sigmoidoscopy or colonoscopy was lower among API compared with white elderly and Hispanic compared with non-Hispanic white elderly age 65 to 74 and age 75 to 84.
- High income elderly of all racial and ethnic groups and middle income whites achieved the HP2010 goal of 50% screened with sigmoidoscopy or colonoscopy while other racial, ethnic, and income groups did not.



Vaccinations. Vaccination of the elderly is an effective strategy for reducing illness and death associated with pneumococcal disease and influenza.

Figure 4.26. Elderly Medicare beneficiaries that ever had pneumonia vaccination by race (top left), ethnicity (top right), and income (bottom left), 1998-2000



- In all 3 years, the proportion of elderly Medicare beneficiaries who had pneumococcal vaccination was lower among black compared with white elderly, among Hispanic compared with non-Hispanic white elderly, and among poor and near poor compared with high income elderly (Figure 4.26).
- The proportion of elderly Medicare beneficiaries who had pneumococcal vaccination was also lower among AI/AN elderly compared with white elderly in 2000.
- Between 1998 and 2000, proportions with pneumococcal vaccination improved among white and black elderly, non-Hispanic white elderly, and all income groups.

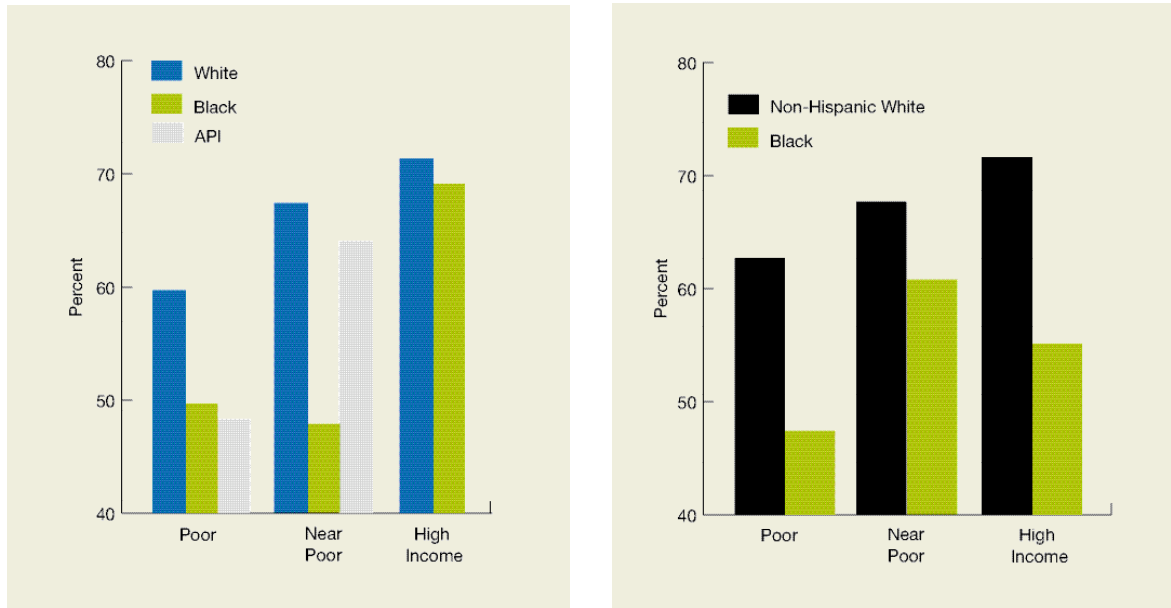
Source: Medicare Current Beneficiary Survey, 1998-2000.

Reference population: Medicare beneficiaries age 65 or older living in the community.



Racial and ethnic minorities are disproportionately poor. To distinguish the effects of race, ethnicity, and income on health care utilization, measures are presented by income level.

Figure 4.27. Elderly Medicare beneficiaries that ever had pneumonia vaccination by race (left) and ethnicity (right) stratified by income, 2000



Source: Medicare Current Beneficiary Survey, 2000.

Reference population: Medicare beneficiaries age 65 or older living in the community.

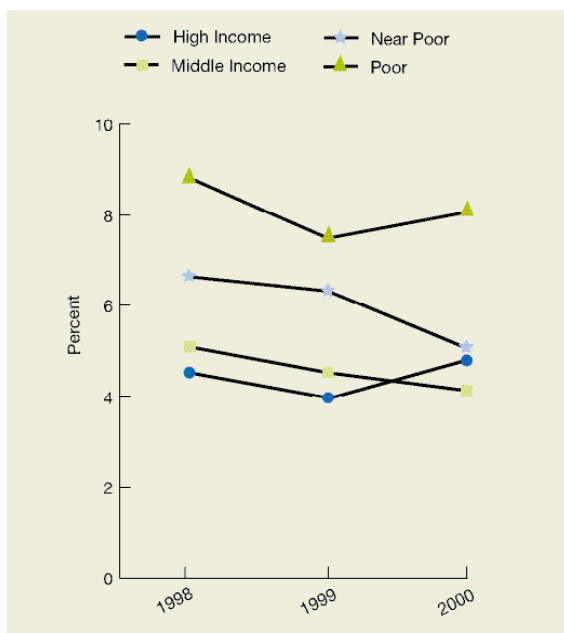
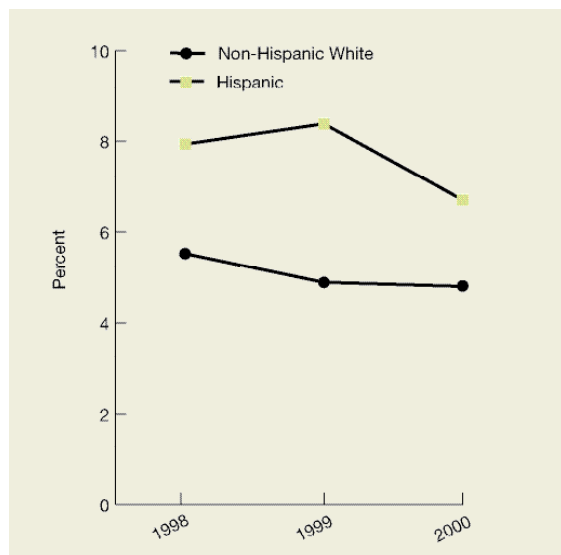
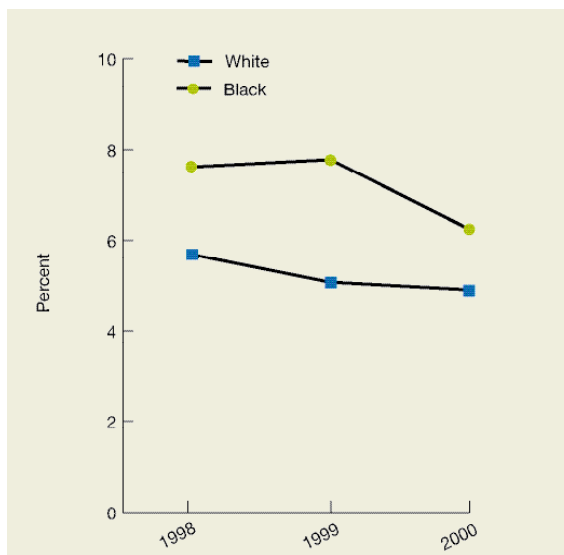
- Income explains some but not all of the differences in health care among the elderly by race and ethnicity.
- Black-white differences in pneumonia vaccination tend to attenuate among people with high incomes. However, they persist among the poor and near poor (Figure 4.27).
- Hispanic—non-Hispanic white differences in pneumonia vaccination are present at all income levels.
- No group achieved the HP2010 goal of 90% of elderly vaccinated against pneumococcal disease.



Access to Health Care

Usual source of care. Not having a usual source of care can prevent patients from receiving needed services. The 2003 NHDR reported that the elderly are more likely than younger age groups to have a specific source of ongoing care, but racial, ethnic, and socioeconomic differences exist.

Figure 4.28. Elderly Medicare beneficiaries with no usual source of care by race (top left), ethnicity (top right), and income (bottom left), 1998-2000



Source: Medicare Current Beneficiary Survey, 1998-2000.

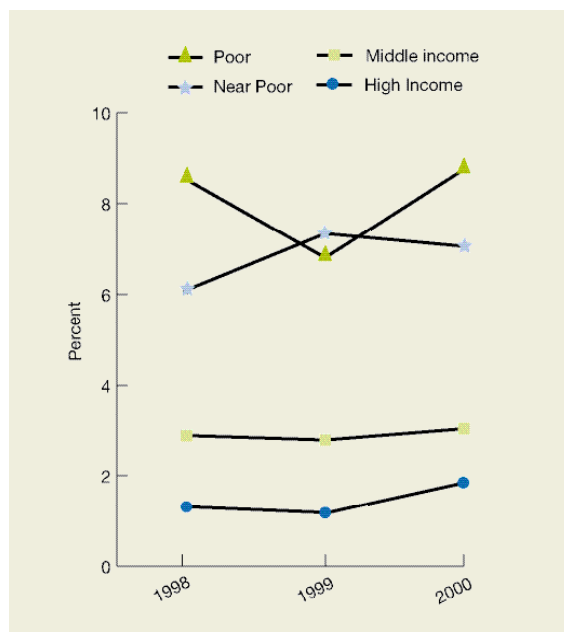
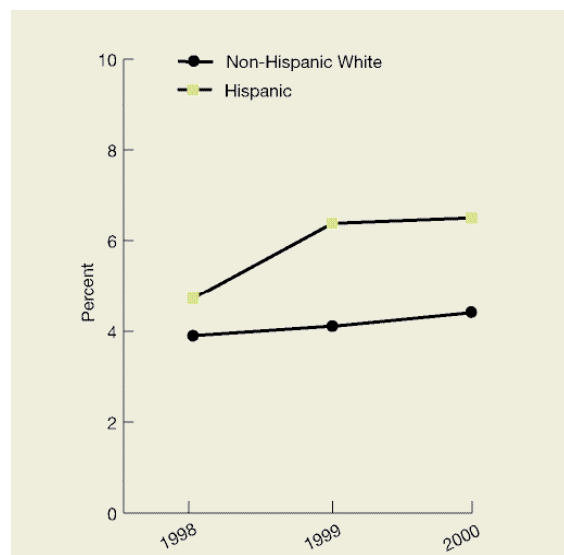
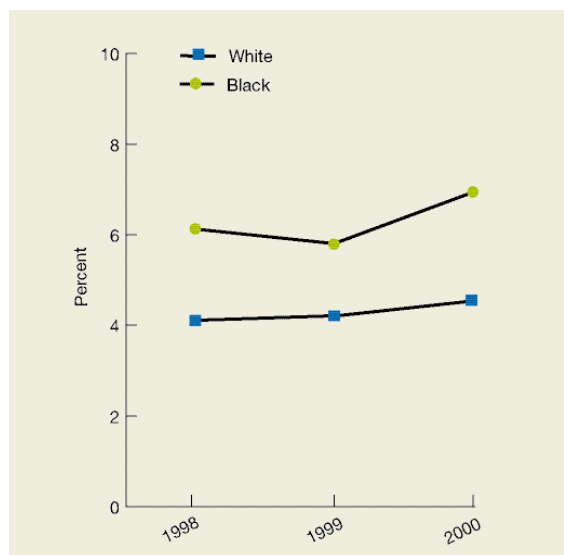
Reference population: Medicare beneficiaries age 65 or older living in the community.

- In all 3 years, the proportion of elderly Medicare beneficiaries who did not have a usual source of care was higher among poor and near poor compared with high income elderly (Figure 4.28).
- Between 1998 and 2000, report of a usual source of care did not change significantly for any racial, ethnic, or income group.
- Only high income white elderly achieved the HP2010 goal of 96% of Americans with a source of care while other racial, ethnic, and income groups did not.



Patient perceptions of need. In the 2003 NHDR, the elderly were less likely than younger age groups to report difficulties or delays in obtaining health care and not getting routine care or care for illness or injury as soon as wanted. However, racial, ethnic, and socioeconomic differences in patient perceptions of need were observed.

Figure 4.29. Elderly Medicare beneficiaries with delayed care due to cost by race (top left), ethnicity (top right), and income (bottom left), 1998-2000



Source: Medicare Current Beneficiary Survey, 1998-2000.

Reference population: Medicare beneficiaries age 65 or older living in the community.

- In all 3 years, the proportion of elderly Medicare beneficiaries who reported delayed care due to cost was higher among poor and near poor compared with high income elderly (Figure 4.29).
- Between 1998 and 2000, delayed care due to cost did not change significantly for any racial, ethnic, or income group.



Residents of Rural Areas

One in five Americans lives in a non-metropolitan area. Compared with their urban counterparts, rural residents are disproportionately elderly and poor.⁶⁸

Rural residents are more likely to report fair or poor health, to have chronic conditions such as diabetes, and to die from heart disease.^{68 69} Residents of the most rural counties experience “the highest death rates for children and young adults ... and the highest mortality for ischemic heart disease and suicide among men.”⁷⁰

There are fewer health care providers per capita in rural areas than in non-rural areas. Although 20% of Americans live in rural areas, only 9% of the Nation’s physicians practice in rural areas.⁷¹ There are programs to address the need for physicians in rural areas, such as the National Health Service Corps Scholarship Program, and programs that deliver care in rural areas, such as the Indian Health Service and community health centers. In addition, many non-physician providers work in rural areas and help to deliver needed services. However, many facilities that rural residents rely upon, such as small rural hospitals, have closed or are in financial distress.⁷²

Transportation needs are also pronounced among rural residents, who face longer distances to reach health care delivery sites. Residents of “frontier counties”ⁱ find it particularly difficult to obtain health care due to long distances and travel times to sources of care. Of the 940 “frontier counties,” most have limited health care services and 78 do not have any at all.^{73 74}

Rural residents are less likely to receive recommended preventive services and report, on average, fewer visits to health care providers.⁷⁵ Rural minorities appear to be particularly disadvantaged, and differences are observed in cancer screening and management of cardiovascular disease and diabetes.^{76 77}

Many measures of relevance to residents of rural areas are tracked in the NHDR. In the 2003 NHDR, racial, ethnic, and socioeconomic comparisons among residents of areas outside of metropolitan statistical areas (MSAs) were presented. Recognizing that the broad category “non-MSA” masks considerable heterogeneity across the urban-rural continuum, more detailed geographic typologies have been applied to two AHRQ databases for the 2004 NHDR.

ⁱ “Frontier countries have a population density of less than seven persons per square mile, and residents travel a significant distance for health care.



HCUP State Inpatient Databases. This year, data from the HCUP State Inpatient Databases use new Federal definitions of metropolitan, micropolitan, and non-core based statistical areas published in June 2003 (Table 4.1).⁷⁸ HCUP urban-rural contrasts compare residents of micropolitan and non-core based statistical areas with residents of metropolitan statistical areas. HCUP data are used to provide information about quality of care including:

- Diabetes
- Heart disease
- Child health
- Patient safety

Medical Expenditure Panel Survey. This year, data from MEPS also use new Federal definitions. In addition, Urban Influence Codes are used to further subdivide metropolitan and non-core based statistical areas (Table 4. 1). MEPS urban-rural contrasts compare residents of small metropolitan, micropolitan, and non-core based statistical areas with residents of large metropolitan statistical areas. MEPS data are used to provide information about access to care including:

- Health insurance
- Difficulty getting care
- Health care utilization

Table 4.1. Urban-rural categories used in HCUP State Inpatient Databases and MEPS analyses

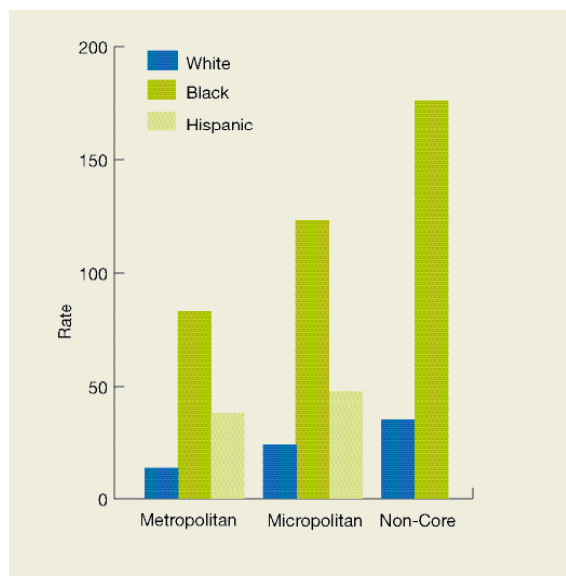
HCUP SID disparities analysis file, 2001: New Federal categories	Metropolitan statistical area (metro): Urban area of 50,000 or more inhabitants		Micropolitan statistical area (micro): Urban area of at least 10,000 but less than 50,000	Non-core based statistical area (non-core): Not metro or micro	
MEPS, 2001: Divides metro and non-core using Urban Influence Codes	Large metropolitan: Metro of 1 million or inhabitants	Small metropolitan: Metro of less than 1 million inhabitants	Micropolitan	Non-core adjacent: Non-core adjacent to metro or micro	Non-core not adjacent: Non-core not adjacent to metro or micro



Quality of Health Care

Diabetes. Effective outpatient care for diabetes reduces admissions for uncontrolled diabetes. Although not all admissions for uncontrolled diabetes can be avoided, rates in populations tend to vary with access to outpatient services.

Figure 4.30. Adult admissions for uncontrolled diabetes without complications per 100,000 population by race/ethnicity, 2001



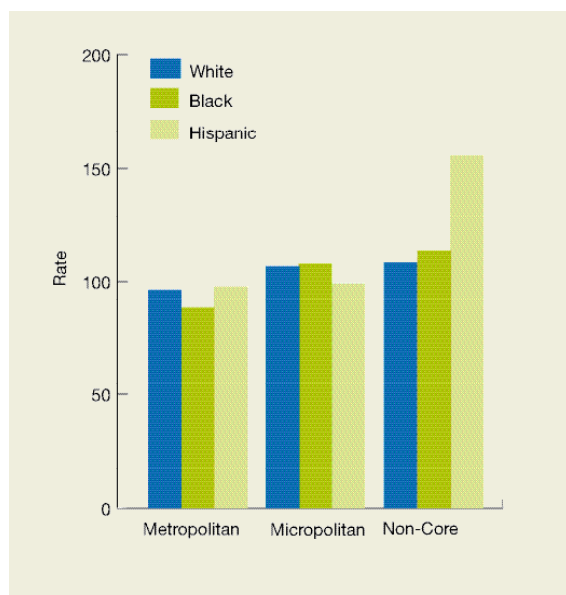
Source: HCUP SID disparities analysis file, 2001.

Reference population: Civilian noninstitutionalized population age 18 and older.

- In 2001, rates of adult admissions for uncontrolled diabetes were higher among residents of micropolitan and non-core based statistical areas than among residents of metropolitan statistical areas.
- Admission rates for uncontrolled diabetes were higher among Hispanics than among non-Hispanic whites in metropolitan areas and higher among blacks than among non-Hispanic whites in all geographic areas (Figure 4.30).

Heartdisease. Inpatient death rates may in part reflect access to high quality hospital care.

Figure 4.31. Deaths per 1,000 adult admissions for acute myocardial infarction by race/ethnicity, 2001



Source: HCUP SID disparities analysis file, 2001.

Reference population: Adults age 18 and older hospitalized with acute myocardial infarction.

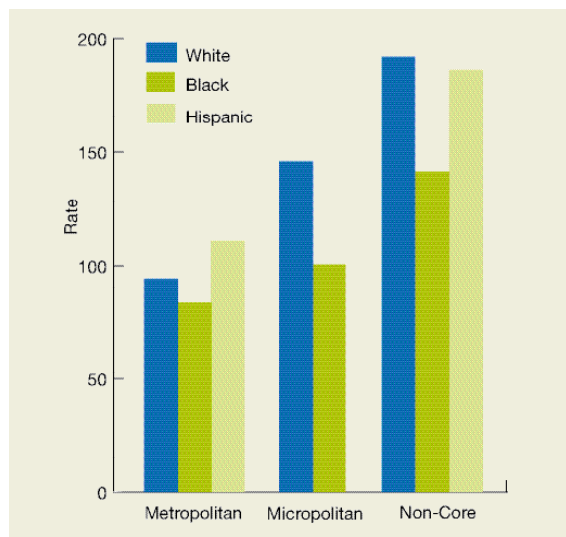
Note: White and Black are non-Hispanic groups.

- In 2001, inpatient death rates among adults admitted for acute myocardial infarction were higher among residents of micropolitan and non-core based statistical areas than among residents of metropolitan statistical areas.
- Inpatient death rates were higher among Hispanics than among non-Hispanic whites in non-core based statistical areas (Figure 4.31). Black-white differences were not significant.



Child health. Effective primary care for children should result in fewer admissions for pediatric gastroenteritis.

Figure 4.32. Pediatric admissions for gastroenteritis per 100,000 population by race/ethnicity, 2001



Source: HCUP SID disparities analysis file, 2001.

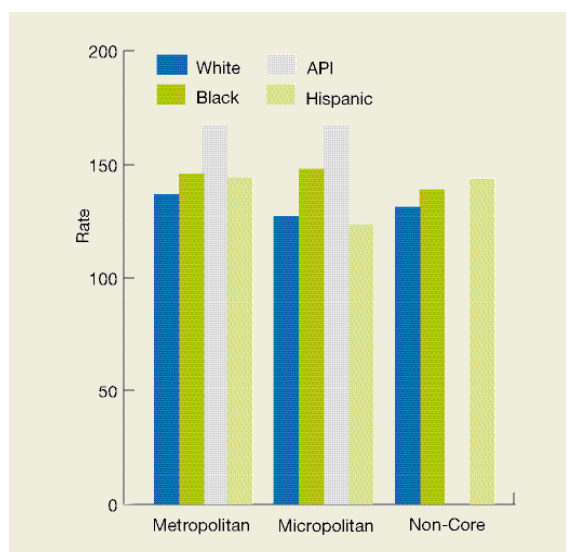
Reference population: Children age 0 to 17.

Note: White and Black are non-Hispanic groups.

- In 2001, admission rates for pediatric gastroenteritis were higher among residents of micropolitan and non-core based statistical areas than among residents of metropolitan statistical areas.
- Admission rates for pediatric gastroenteritis were similar among all racial/ethnic groups in all statistical areas (Figure 4.32).

Patient safety. AHRQ's Patient Safety Indicators capture adverse events associated with inpatient care but cannot distinguish between events that are avoidable and unavoidable.

Figure 4.33. Deaths per 1,000 discharges with complications potentially resulting from care (failure to rescue) by race/ethnicity, 2001



Source: HCUP SID disparities analysis file, 2001.

Reference population: People discharged with complications potentially resulting from care.

Note: White, Black, and API are non-Hispanic groups.

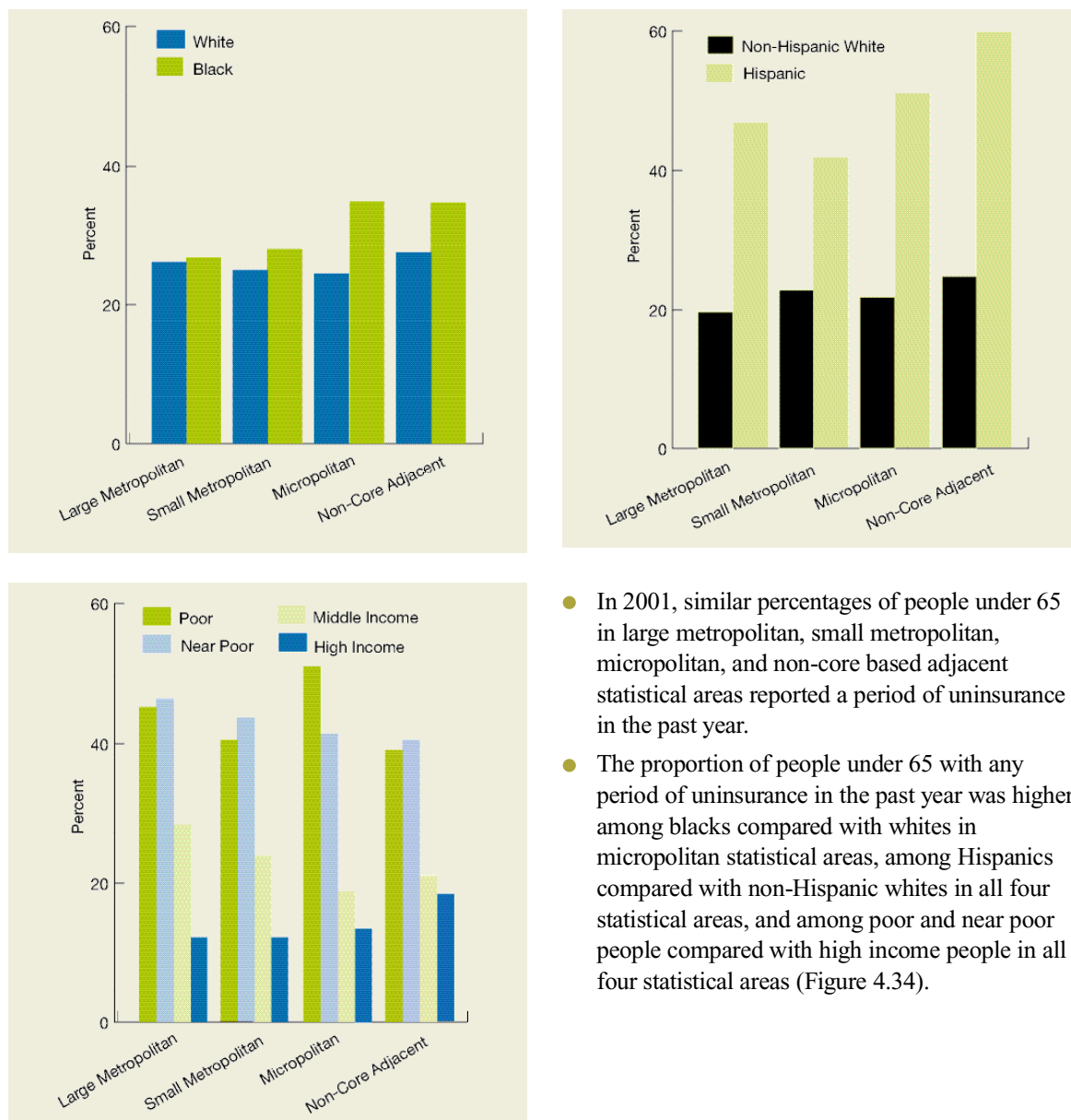
- In 2001, rates of death associated with complications potentially resulting from hospital care (failure to rescue) were lower among residents of micropolitan and non-core based statistical areas than among residents of metropolitan statistical areas.
- Rates of death associated with complications were higher among blacks, Hispanics, and APIs than among non-Hispanic whites in metropolitan statistical areas and higher among blacks than among non-Hispanic whites in micropolitan statistical areas (Figure 4.33).



Access to Health Care

Health insurance. Health insurance facilitates entry into the health care system.

Figure 4.34. People under 65 with any period of uninsurance in past year by race (top left), ethnicity (top right), and income (bottom left), 2001



- In 2001, similar percentages of people under 65 in large metropolitan, small metropolitan, micropolitan, and non-core based adjacent statistical areas reported a period of uninsurance in the past year.
- The proportion of people under 65 with any period of uninsurance in the past year was higher among blacks compared with whites in micropolitan statistical areas, among Hispanics compared with non-Hispanic whites in all four statistical areas, and among poor and near poor people compared with high income people in all four statistical areas (Figure 4.34).

Source: Medical Expenditure Panel Survey, 2001.

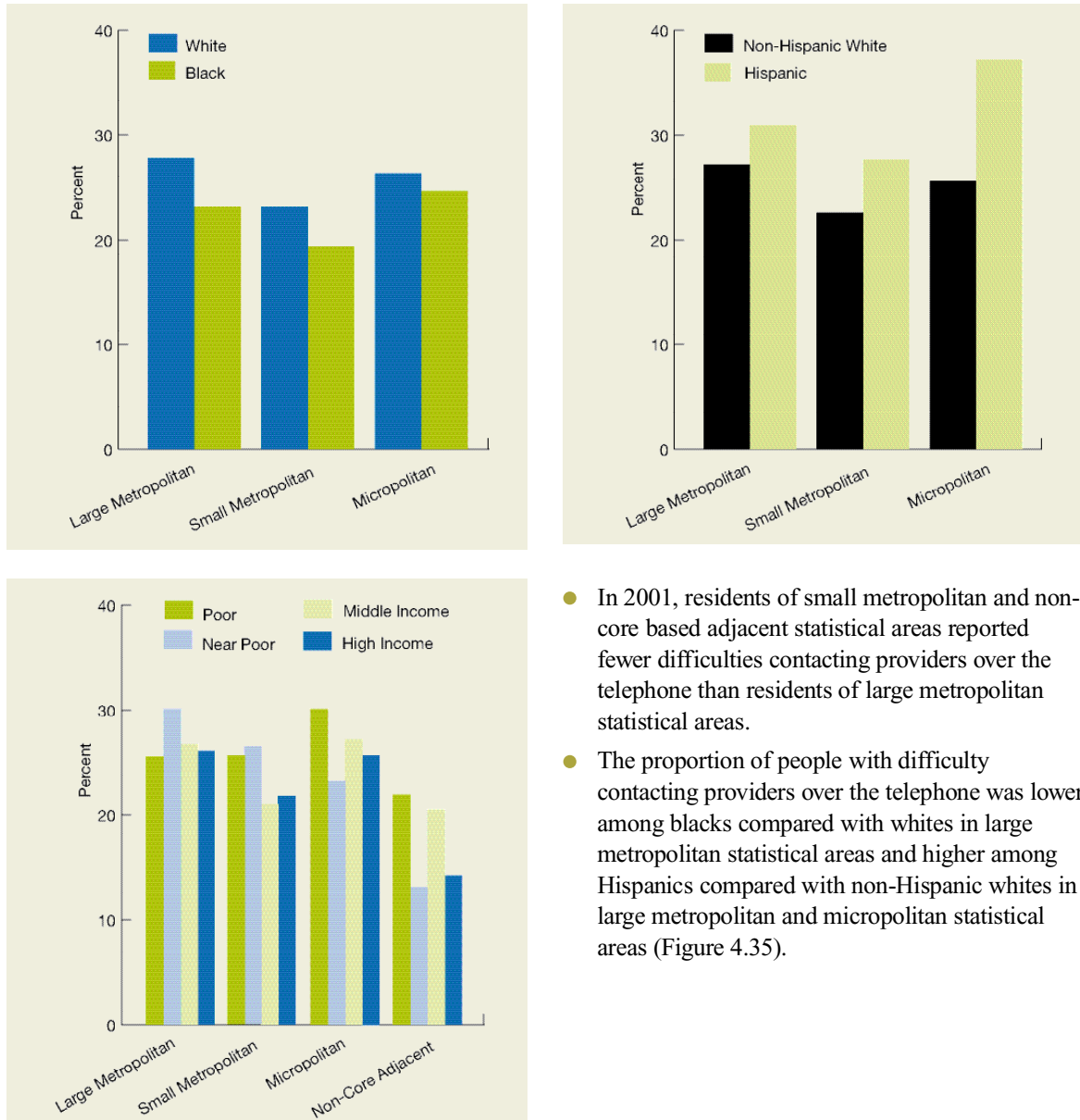
Reference population: Civilian noninstitutionalized population under age 65.

Note: Sample sizes were too small to provide estimates for residents of non-core based statistical areas not adjacent to metropolitan or micropolitan areas.



Difficulty getting care. Maintaining contact and managing patient care over the telephone may be particularly important in geographic areas with few providers and long travel times to care.

Figure 4.35. People with difficulty contacting provider over the telephone by race (top left), ethnicity (top right), and income (bottom left), 2001



- In 2001, residents of small metropolitan and non-core based adjacent statistical areas reported fewer difficulties contacting providers over the telephone than residents of large metropolitan statistical areas.
- The proportion of people with difficulty contacting providers over the telephone was lower among blacks compared with whites in large metropolitan statistical areas and higher among Hispanics compared with non-Hispanic whites in large metropolitan and micropolitan statistical areas (Figure 4.35).

Source: Medical Expenditure Panel Survey, 2001.

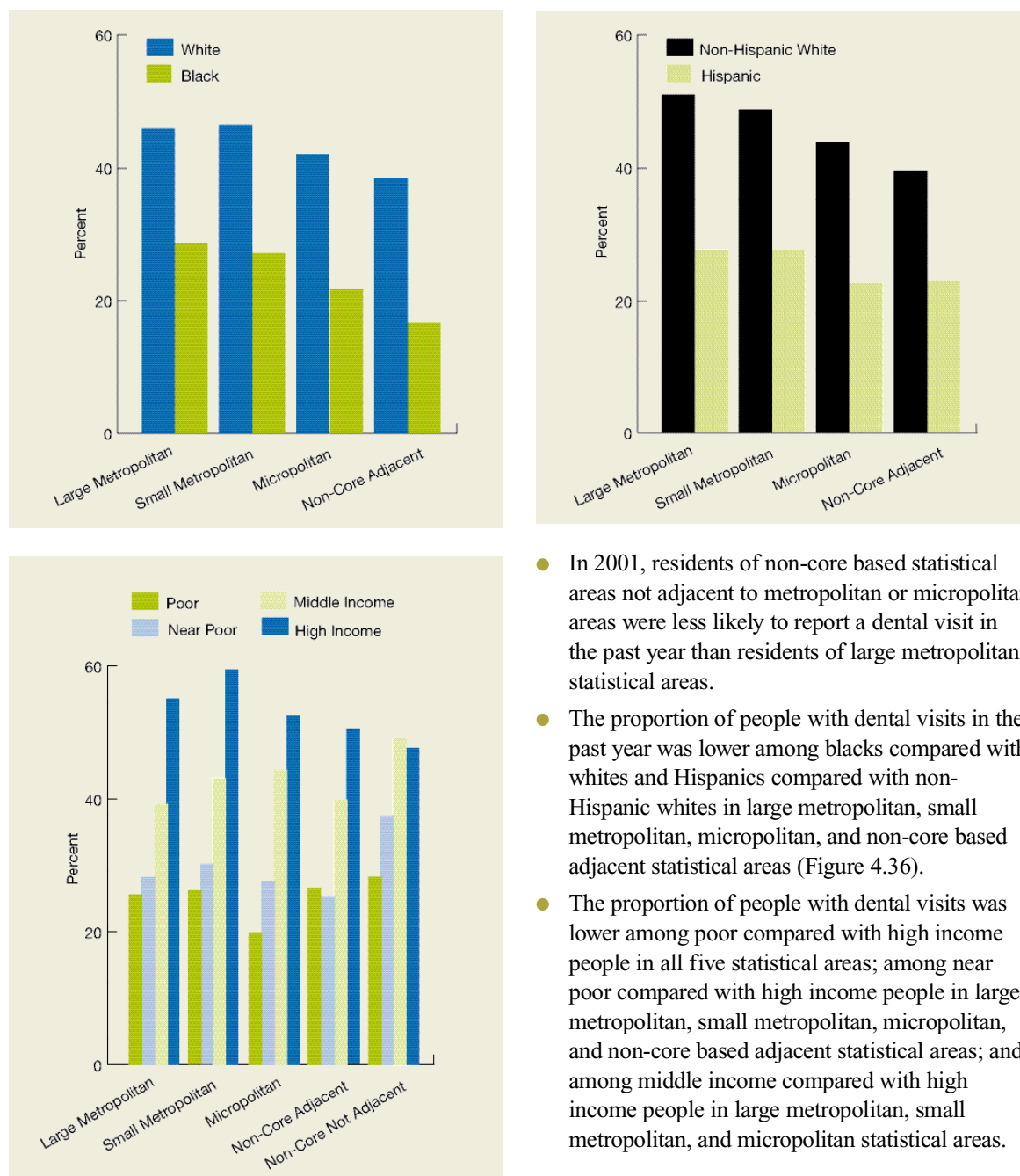
Reference population: Civilian noninstitutionalized population.

Note: Sample sizes were too small to provide estimates for residents of non-core based statistical areas not adjacent to metropolitan or micropolitan areas.



Health care utilization. Routine dental care helps maintain healthy teeth.

Figure 4.36. People with a dental visit in past year by race (top left), ethnicity (top right), and income (bottom left), 2001



- In 2001, residents of non-core based statistical areas not adjacent to metropolitan or micropolitan areas were less likely to report a dental visit in the past year than residents of large metropolitan statistical areas.
- The proportion of people with dental visits in the past year was lower among blacks compared with whites and Hispanics compared with non-Hispanic whites in large metropolitan, small metropolitan, micropolitan, and non-core based adjacent statistical areas (Figure 4.36).
- The proportion of people with dental visits was lower among poor compared with high income people in all five statistical areas; among near poor compared with high income people in large metropolitan, small metropolitan, micropolitan, and non-core based adjacent statistical areas; and among middle income compared with high income people in large metropolitan, small metropolitan, and micropolitan statistical areas.

Source: Medical Expenditure Panel Survey, 2001.

Reference population: Civilian noninstitutionalized population.

Note: Data support estimates for residents of non-core not adjacent areas by income but not by race or ethnicity.



Individuals With Special Health Care Needs

Individuals with special health care needs include individuals with disabilities, individuals who need chronic care or end-of-life health care, and children with special health care needs. In the 2003 NHDR, a small amount of information about each of these groups was reported; in the 2004 NHDR, one of these groups, children with special health care needs, is highlighted. The recently available 2001 National Survey of Children with Special Health Care Needs (NSCSHCN) is used to provide more detailed information about disparities in health care for this group. In future iterations of the NHDR, it is anticipated that detailed information about other individuals with special health care needs will be provided.

Studying access to and quality of care for children with chronic conditions is difficult due to the low prevalence of most conditions in children.^{79 80 81} A standard definition of CSHCN was developed in 1995.^{80 82} This definition was subsequently used to develop the CSHCN Screener Questionnaire⁸⁰ and included in the 2001 NSCSHCN.^{83 84} The 2001 NSCSHCN estimated that 12.8% of all noninstitutionalized children, or 9.4 million children, had special health care needs in the United States in 2001.⁸⁴

By definition, children with special health care needs are children that require more medical care because they are less healthy. As a result of requiring more medical care, CSHCN have higher medical expenses, on average, than other children, and their medical expenses make up a disproportionately higher share of children's total health care dollars.^{80 85 86} According to the 2001 NSCSHCN, costs of care for 20.9% of CSHCN caused financial problems for their families.⁸⁴ In addition to financial burdens, families of CSHCN spend considerable time caring for them. An estimated 13.5% of CSHCN had families who spent 11 or more hours per week providing or coordinating care.⁸⁴

Having higher health care needs makes CSHCN susceptible to access, cost, quality, and coverage weaknesses in the health care system. Studies have documented that poor and racial and ethnic minority children with chronic conditions may experience lower quality care.^{87 88} Children with chronic conditions are reported by their parents to be less likely than other children to receive the full range of needed health services.⁸⁹ Among CSHCN, minorities are more likely than white children to be without health insurance coverage or a usual source of care.⁹⁰

Many measures of relevance to CSHCN are tracked in the NHDR. The section on children in this chapter includes comparisons of CSHCN with other children on receipt of counseling about physical activity (Figure 4.20) and on parent-provider communication (Figure 4.24). Findings presented here seek to focus on family-centered care and to highlight topics in access to health care of particular importance to CSHCN including:

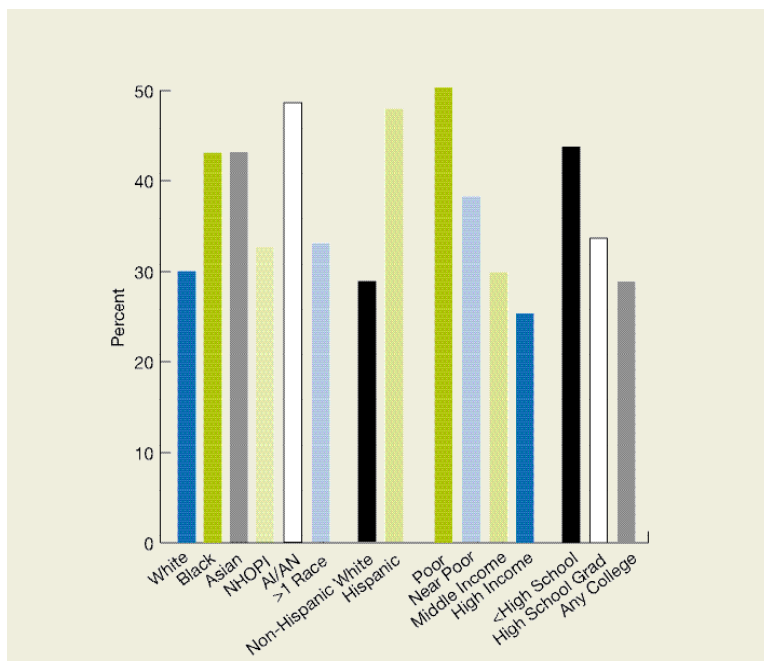
- Health insurance
- Usual source of care
- Patient perceptions of need
- Difficulty getting care



Focus on Family-Centered Care

Family-centered care requires providers who spend adequate time with the child, listen carefully to the parent, are sensitive to family values and customs, communicate specific needed health information, and help the family feel like a partner in the child's care.

Figure 4.37. Children with special health care needs without family-centered care by race, ethnicity, income, and parental education, 2001



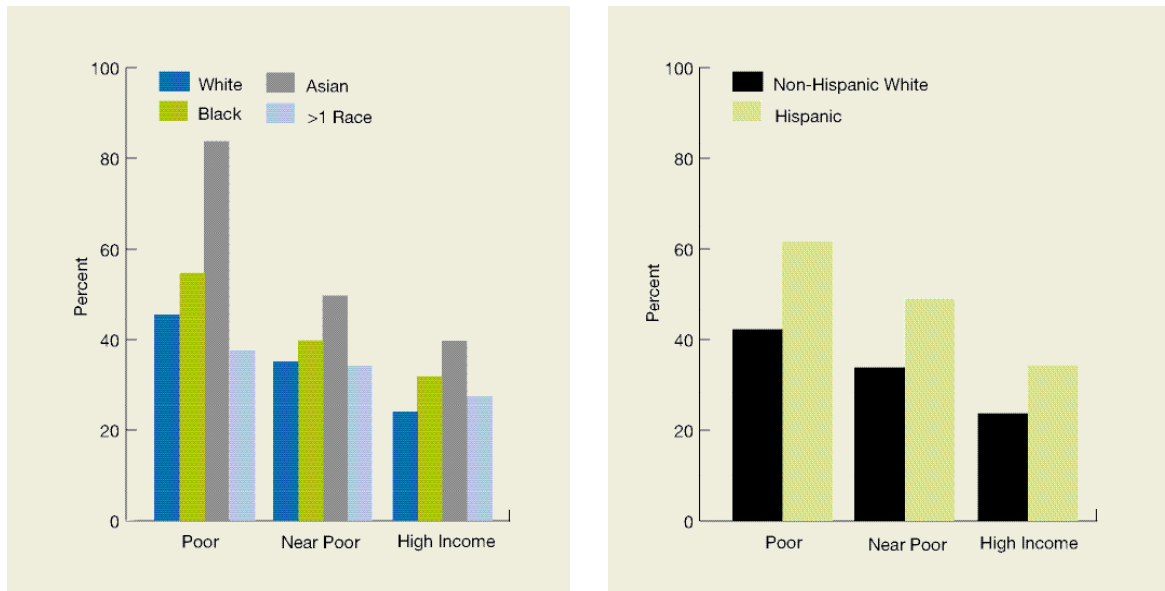
Source: National Survey of Children with Special Health Care Needs, 2001.

Reference population: Civilian noninstitutionalized population age 0 to 17 with special health care needs.

- In 2001, the proportion of CSHCN reported as not receiving family-centered care was higher among black, Asian, and AI/AN compared with white CSHCN; among Hispanic compared with non-Hispanic white CSHCN; among poor, near poor, and middle income compared with high income CSHCN; and among CSHCN whose parents had less than a high school education compared with CSHCN whose parents had any college education (Figure 4.37).



Figure 4.38. Children with special health care needs without family-centered care by race (left) and ethnicity (right) stratified by income, 2001



Source: National Survey of Children with Special Health Care Needs, 2001.

Reference population: Civilian noninstitutionalized population age 0 to 17 with special health care needs.

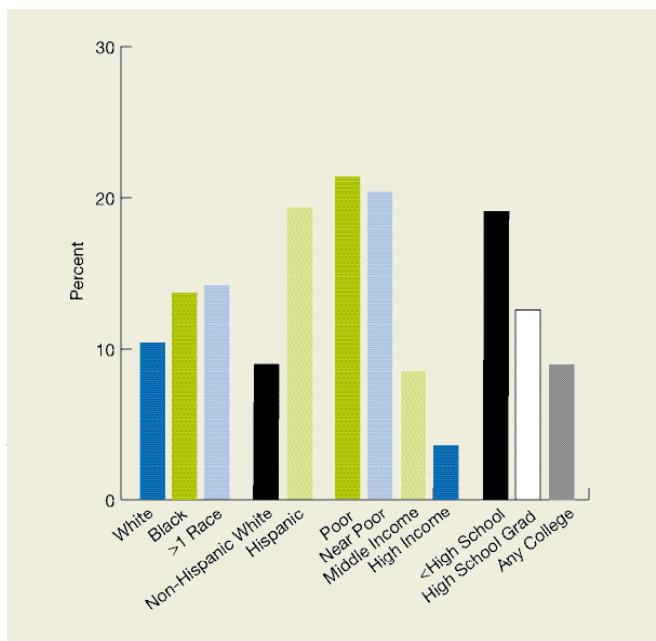
- Income explains some but not all of the differences in quality of care among CSHCN by race and ethnicity. For example, although racial and ethnic differences in family-centered care tend to attenuate among CSHCN in high income families, they often persist among the poor and near poor (Figure 4.38).



Access to Health Care

Health insurance. An important measure of access to care is health insurance coverage.

Figure 4.39. Children with special health care needs who were without health insurance at some point in the past year by race, ethnicity, income, and parental education, 2001



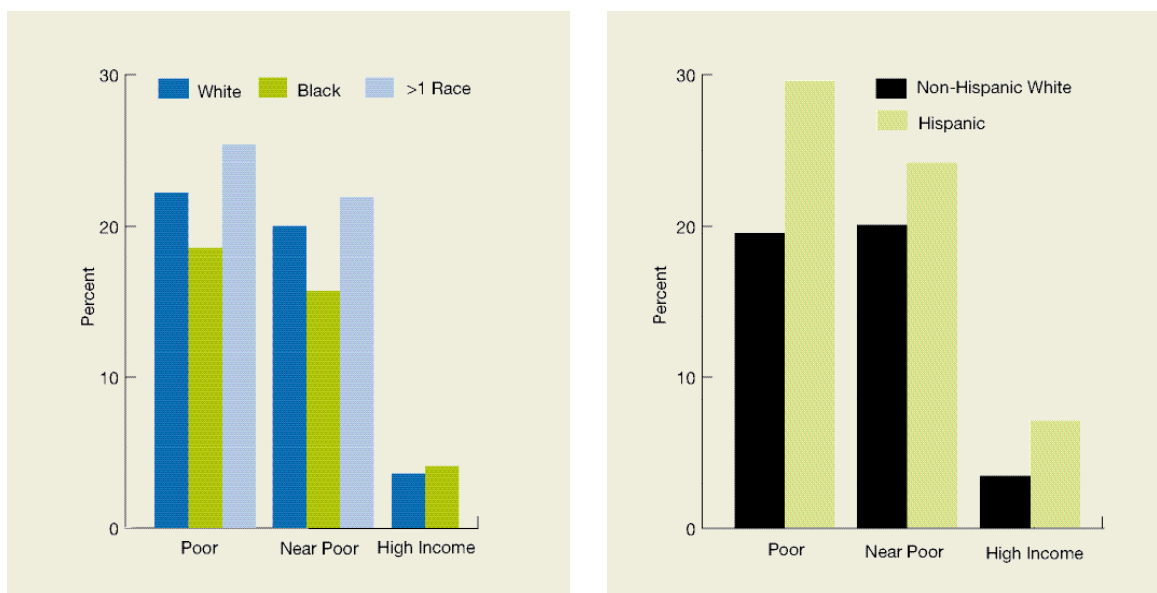
Source: National Survey of Children with Special Health Care Needs, 2001.

Reference population: Civilian noninstitutionalized population age 0 to 17 with special health care needs.

- In 2001, the proportion of CSHCN reported as having no health insurance at some time in the past year was higher among black and multiple race CSHCN compared with white CSHCN; among Hispanic compared with non-Hispanic white CSHCN; among poor, near poor, and middle income compared with high income CSHCN; and among CSHCN whose parents had less than a high school education or were high school graduates compared with CSHCN whose parents had any college education (Figure 4.39).



Figure 4.40. Children with special health care needs who were without health insurance at some point in the past year by race (left) and ethnicity (right) stratified by income, 2001



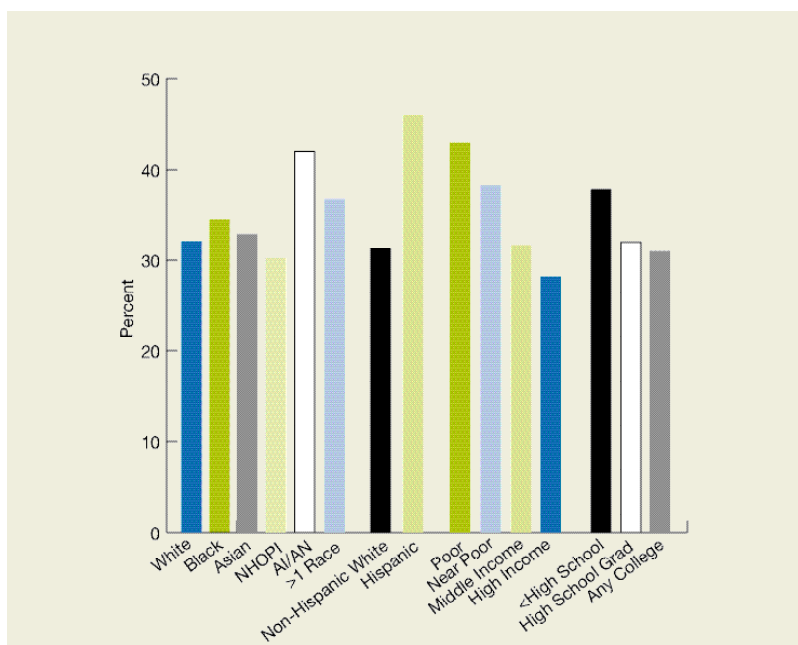
Source: National Survey of Children with Special Health Care Needs, 2001.

Reference population: Civilian noninstitutionalized population age 0 to 17 with special health care needs.

- Income explains some but not all of the differences in access to care among CSHCN by ethnicity. For example, although differences in health insurance between Hispanics and non-Hispanic whites tend to attenuate or disappear among CSHCN in high income families, they persist among the poor (Figure 4.40). In contrast, differences among racial groups are not significant at all income levels.



Figure 4.41. Currently insured children with special health care needs whose insurance is not adequate by race, ethnicity, income, and parental education, 2001



Source: National Survey of Children with Special Health Care Needs, 2001.

Reference population: Civilian noninstitutionalized population age 0 to 17 with special health care needs who have health insurance.

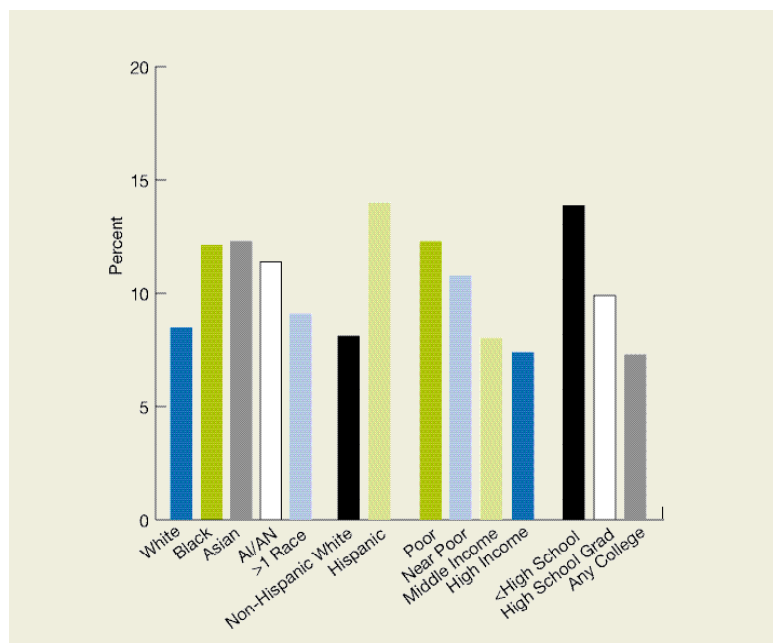
Note: Among CSHCN with insurance, adequacy of health insurance assesses the degree to which benefits cover the child's needs, uncovered costs are reasonable, and the child is able to see the providers he or she needs.

- In 2001, the proportion of CSHCN with insurance reported as having less than adequate insurance was higher among Hispanic compared with non-Hispanic white CSHCN; among poor, near poor, and middle income compared with high income CSHCN; and among CSHCN whose parents had less than a high school education compared with CSHCN whose parents had any college education (Figure 4.41). Racial differences were not significant.



Usual source of care. Having a usual source of care is another important part of access to care.

Figure 4.42. Children with special health care needs who have no usual source of health care by race, ethnicity, income, and parental education, 2001



Source: National Survey of Children with Special Health Care Needs, 2001.

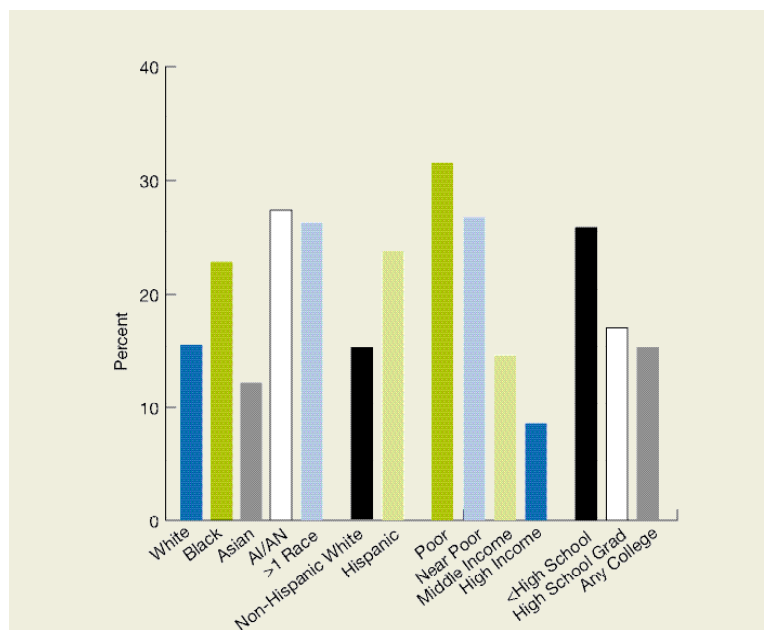
Reference population: Civilian noninstitutionalized population age 0 to 17 with special health care needs.

- In 2001, the proportion of CSHCN reported as having no usual source of care was higher among black than white CSHCN, Hispanic than non-Hispanic white CSHCN, poor and near poor than high income CSHCN, and CSHCN whose parents had less than a high school education or were high school graduates than CSHCN whose parents had any college education (Figure 4.42).



Patient perceptions of need. CSHCN require many different types of health care services.

Figure 4.43. Children with special health care needs who reported any unmet needs for specific health care services in the past year by race, ethnicity, income, and parental education, 2001



Source: National Survey of Children with Special Health Care Needs, 2001.

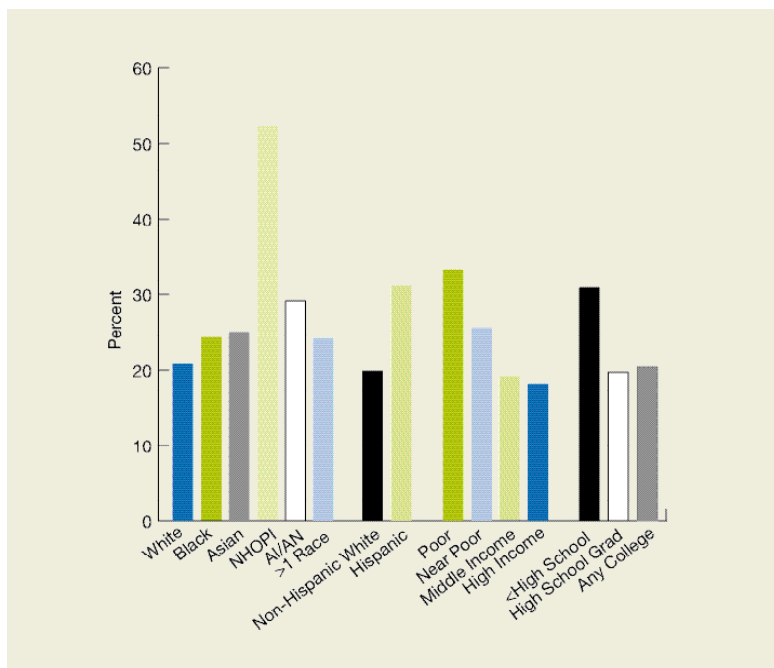
Reference population: Civilian noninstitutionalized population age 0 to 17 with special health care needs.

- In 2001, the proportion of CSHCN reported as having unmet needs for specific health care services was higher among black, AI/AN, and multiple race CSHCN compared with white CSHCN; Hispanic compared with non-Hispanic white CSHCN; poor, near poor, and middle income compared with high income CSHCN; and CSHCN whose parents had less than a high school education compared with CSHCN whose parents had any college education (Figure 4.43).



Difficulty getting care. Children with special health care needs often require care from specialists.

Figure 4.44. Children with special health care needs needing specialty care who reported difficulty getting a referral in the past year by race, ethnicity, income, and parental education, 2001



Source: National Survey of Children with Special Health Care Needs, 2001.

Reference population: Civilian noninstitutionalized population age 0 to 17 with special health care needs who needed specialty care.

- In 2001, the proportion of CSHCN needing specialty care reported as having difficulty getting a referral was higher among NH/PI compared with white CSHCN; Hispanic compared with non-Hispanic white CSHCN; poor and near poor compared with high income CSHCN; and CSHCN whose parents had less than a high school education compared with CSHCN whose parents had any college education (Figure 4.44). Black-white differences were not significant.



References

- ¹Healthcare Research and Quality Act of 1999 (Public Law 106-129). 113 Stat. 1653; Dec. 6, 1999. Available at: <http://lcweb2.loc.gov/law/usa/us060129.pdf>
- ²Bigby J. Cross-Cultural Medicine. Philadelphia, PA: American College of Physicians; 2003.
- ³McKinnon J. The black population: 2000. Census 2000 Brief. Washington, DC: U.S. Census Bureau; August 2001. Available at: <http://www.census.gov/prod/2001pubs/c2kbr01-5.pdf>
- ⁴Guzman B. The Hispanic population. Census 2000 Brief. Washington, DC: U.S. Census Bureau; May 2001. Available at: <http://www.census.gov/prod/2001pubs/c2kbr01-3.pdf>
- ⁵Barnes JS, Bennett CE. The Asian population: 2000. Census 2000 Brief. Washington, DC: U.S. Census Bureau; February 2002. Available at: <http://www.census.gov/prod/2002pubs/c2kbr01-16.pdf>
- ⁶Grieco EM. The Native Hawaiian and Other Pacific Islander population: 2000. Census 2000 Brief. Washington, DC: US Census Bureau; December 2001. Available at: <http://www.census.gov/prod/2001pubs/c2kbr01-14.pdf>
- ⁷Institute of Medicine, Committee on Understanding and Eliminating Racial and Ethnic Disparities in Health Care. Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care. Washington DC: National Academies Press; 2003.
- ⁸Lillie-Blanton M, Rushing OE, Ruiz S. Key Facts: Race, Ethnicity, and Medical Care. Menlo Park, CA: Kaiser Family Foundation; 2003.
- ⁹Collins KS, Hughes DL, Doty MM, Ives BL, Edwards JN, Tenney K. Diverse Communities, Common Concerns: Assessing Health Care Quality for Minority Americans. New York, NY: Commonwealth Fund; 2002.
- ¹⁰Office of Management and Budget. Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity. Federal Register. 1997 Oct 30;62(210):58782-58790. Available at: <http://www.whitehouse.gov/omb/fedreg/ombdir15.html>
- ¹¹Indian Health Service. Health and Heritage Brochure [Web site]. Indian Health Service: An Agency Profile; 2002. Available at: <http://info.ihs.gov/IHSPProfile.pdf>
- ¹²Indian Health Service. IHS National Diabetes Program. Annual diabetes care and outcomes audit; 2002. Unpublished data.
- ¹³Proctor BD, Dalaker J. Poverty in the United States: 2002. U.S.Census Bureau, Current Population Reports, P60-222. Washington, DC: U.S.Govt. Print. Off.; 2003.
- ¹⁴Pamuk E, Makuc D, Heck K, Reuben C, Lochner K. Health United States, 1998: With Socioeconomic Status and Health Chartbook.. Hyattsville, MD: National Center for Health Statistics; 1998.
- ¹⁵Adler NE, Newman K. Socioeconomic disparities in health: Pathways and policies. Health Aff (Millwood). 2002; 21(2):60-76.
- ¹⁶Black D, Morris JN, Smith C, Townsend P. Inequalities in Health: Report of a Research Working Group. London: Department of Health and Social Security; 1980.
- ¹⁷Acheson D. Independent inquiry into inequalities in health. London: Stationery Office; 1998.
- ¹⁸Brown AF, Gross AG, Gutierrez PR, Jiang L, Shapiro MF, Mangione CM. Income-related differences in the use of evidence-based therapies in older persons with diabetes mellitus in for-profit managed care. J Am Geriatr Soc. 2003 May;51(5):665-70.
- ¹⁹Shin P, Jones K, Rosenbaum S. Reducing Racial and Ethnic Health Disparities: Estimating the Impact of High Health Center Penetration in Low-Income Communities. Washington, DC: Center for Health Services Research and Policy; 2003. Available at: http://www.gwhealthpolicy.org/downloads/GWU_Disparities_Report.pdf



- ²⁰Smith DI, Spraggins RE. Gender: 2000. Census 2000 Brief. Washington, DC: U.S. Census Bureau; 2001.
- ²¹Day, JC. Population Projections of the United States by Age, Sex, Race, and Hispanic Origin: 1995 to 2050. U.S. Bureau of the Census, Current Population Reports, P25-1130. Washington, DC: U.S. Govt. Print. Off.; 1996.
- ²²Hobbs F, Stoops N. Demographic trends in the 20th century. Census 2000 special reports, series CENSR-4. Washington, DC: U.S. Census Bureau; 2002.
- ²³U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. Women's Health USA 2003. Rockville, MD: U.S. Department of Health and Human Services; 2003.
- ²⁴Arias E, Anderson RN, Kung HC, Murphy SL, Kochanek KD. Deaths: final data for 2001. Natl Vital Stat Rep 2003, Sep 18; 52(3): 1-115. Hyattsville, MD: National Center for Health Statistics.
- ²⁵National Women's Law Center and Oregon Health & Science University. Making the Grade on Women's Health: A National and State-by-State Report Card. Washington, DC: National Women's Law Center; 2004.
- ²⁶Salganicoff A, Beckerman JZ, Wyn R, Ojeda VD. Women's Health in the United States: Health Coverage and Access to Care. Menlo Park, CA: Kaiser Family Foundation; 2002.
- ²⁷Health care for minority women. Program Brief. Rockville, MD: Agency for Healthcare Research and Quality; 2002. AHRQ Pub. No. 03-P020. Available at: <http://www.ahrq.gov/research/minority.htm>
- ²⁸Kaiser Family Foundation. Health Coverage and Access Challenges for Low-Income Women: Findings From the 2001 Kaiser Women's Health Survey. Menlo Park, CA: Kaiser Family Foundation; 2004.
- ²⁹Kaiser Family Foundation. Racial and Ethnic Disparities in Women's Health Coverage and Access to Care: Findings From the 2001 Kaiser Women's Health Survey. Menlo Park, CA: Kaiser Family Foundation; 2004.
- ³⁰Jemal A, Tiwari RC, Murray T, Ghafoor A, Samuels A, Ward E, Feuer EJ, Thun MJ. Cancer Statistics, 2004. CA Cancer J Clin. 2004 Jan-Feb;54(1):8-29.
- ³¹Trans-HHS Cancer Health Disparities Progress Review Group. Making Cancer Health Disparities History. Washington, DC: U.S. Department of Health and Human Services; 2004.
- ³²Centers for Disease Control and Prevention. National diabetes fact sheet: general information and national estimates on diabetes in the United States, 2002. Atlanta, GA: Centers for Disease Control and Prevention; 2003. Available at: <http://www.diabetes.org/diabetes-statistics/national-diabetes-fact-sheet.jsp>
- ³³American Diabetes Association. Diabetes statistics for women. Available at: <http://www.diabetes.org/diabetes-statistics/women.jsp>
- ³⁴National Quality Forum. National Voluntary Consensus Standards For Adult Diabetes Care: A Consensus Report. Washington, DC: NQF; 2002.
- ³⁵National Diabetes Quality Improvement Alliance. National Diabetes Quality Improvement Alliance Performance Measurement Set for Adult Diabetes. Chicago, IL: NDQIA; 2003.
- ³⁶National Heart, Lung, and Blood Institute. Women's Heart Health: Developing a National Health Education Action Plan. Strategy Development Workshop Report, March 26-27, 2001. Bethesda, MD: National Institutes of Health; 2001. Available at: <http://www.nhlbi.nih.gov/health/prof/heart/other/whhw.pdf>
- ³⁷Missed opportunities in preventive counseling for cardiovascular diseases—United States, 1995. MMWR Morb Mortal Wkly Rep. 1998 Feb 13;47(5):91-5.
- ³⁸Stone PH, Thompson B, Anderson HV, Kronenberg MW, Gibson RS, Rogers WJ, et al. Influence of race, sex, and age on management of unstable angina and non-Q-wave myocardial infarction: the TIMI III Registry. JAMA. 1996 Apr 10;275(14): 1104-12.



- ³⁹Thomas RJ, Miller NH, Lamendola C, Berra K, Hedback B, Durstine JL, Haskell W. National Survey on Gender Differences in Cardiac Rehabilitation Programs. Patient characteristics and enrollment patterns. *J Cardiopulm Rehabil.* 1996 Nov-Dec;16(6): 402-12.
- ⁴⁰American Heart Association. Heart Disease And Stroke Statistics – 2003 Update. Dallas, TX: American Heart Association; 2002.
- ⁴¹National Institutes of Health Osteoporosis and Related Bone Diseases ~ National Resource Center. Osteoporosis overview fact sheet. Bethesda, MD: NIH; 2003.
- ⁴²Hamilton BE, Martin JA, Sutton PD; U.S. Department of Health and Human Services Centers for Disease Control and Prevention. Births: preliminary data for 2002. *Natl Vital Stat Rep.* 2003 Jun 25;51(11):1-20.
- ⁴³Vintzileos AM, Ananth CV, Smulian JC, Scorza WE, Knuppel RA. The impact of prenatal care on neonatal deaths in the presence and absence of antenatal high-risk conditions. *Am J Obstet Gynecol.* 2002 May;186(5):1011-6.
- ⁴⁴Huntington J, Connell FA. For every dollar spent—the cost-savings argument for prenatal care. *N Engl J Med.* 1994 Nov 10;331(19):1303-7.
- ⁴⁵The importance of primary care physicians as the usual source of healthcare in the achievement of prevention goals. One-Pager No. 4. Washington, DC: The Robert Graham Center: Policy Studies in Family Practice and Primary Care; February 2000. Available at: <http://www.aafppolicy.org/x159.xml>
- ⁴⁶Institute of Medicine, Committee on the Future of Primary Care. Primary Care: America's Health in a New Era. Donaldson MS, Yordy KD, Lohr KN, Vanselow NA (Eds.). Washington, DC: National Academy Press; 1996.
- ⁴⁷Meyer J. Age: 2000. Census 2000 Brief. Washington, DC: U.S. Census Bureau; 2001.
- ⁴⁸U.S. Department of Health and Human Services. Health United States 2003: With Chartbook on Trends in the Health of Americans. Hyattsville, MD: National Center for Health Statistics; September 2003.
- ⁴⁹Hobbs F, Stoops N. Demographic Trends in the 20th Century. Census 2000 special reports, series CENSR-4. Washington, DC: U.S. Census Bureau; 2002.
- ⁵⁰Bishaw A, Iceland J. Poverty: 1999. Census 2000 brief. Washington, DC: U.S. Census Bureau; 2003.
- ⁵¹Kochanek KD, Smith BL. Deaths: preliminary data for 2002. *Natl Vital Stat Rep.* 2004 Feb 11;52(13):1-47. Hyattsville, MD: National Center for Health Statistics.
- ⁵²Weigers ME, Drilea SK. Health status and limitations: A comparison of Hispanics, blacks, and whites, 1996. MEPS Research Findings No. 10. AHCPR Pub. No. 00-0001. Rockville, MD: Agency for Healthcare Research and Quality; 1999.
- ⁵³Leatherman S, McCarthy D. Quality of Health Care for Children and Adolescents: A Chartbook. New York, NY: Commonwealth Fund; 2004.
- ⁵⁴Vaccination coverage by race/ethnicity and poverty level among children aged 19-35 months – United States, 1997. *MMWR Morb Mortal Wkly Rep.* 1998; 47:956-959.
- ⁵⁵Lieu TA, Lozano P, Finkelstein JA, Chi FW, Jensvold NG, Capra AM, Quesenberry CP, Selby JV, Farber HJ. Racial/ethnic variation in asthma status and management practices among children in managed medicaid. *Pediatrics.* 2002;109:857-865.
- ⁵⁶Bussing R, Zima BT, Gary FA, Garvan CW. Barriers to detection, help-seeking, and service use for children with ADHD symptoms. *J Behav Health Serv Res.* 2003;30:176-189.
- ⁵⁷Rhoades JA, Cohen JW. Statistical Brief #28: Health insurance status of children in America: 1996-2002 estimates for the non-institutionalized population under age 18. Rockville, MD: Agency for Healthcare Research and Quality; 2003. Available at: <http://www.meps.ahrq.gov/papers/st28/stat28.htm>



- ⁵⁸Statistical Brief #3: Children's health care quality, fall 2000. Rockville, MD: Agency for Healthcare Research and Quality; 2003. Available at: <http://www.meps.ahrq.gov/papers/st3/stat03.htm>
- ⁵⁹Weech-Maldonado R, Morales LS, Elliott M, Spritzer K, Marshall G, Hays RD. Race/ethnicity, language, and patients' assessments of care in Medicaid managed care. *Health Serv Res.* 2003;38:789-808.
- ⁶⁰Simpson L, Zodet MW, Chevarley FM, Owens P, Dougherty D, McCormick MC. Health care for children and youth in the United States: 2002 report on trends in access, utilization, quality, and expenditures. *Ambul Pediatr.* 2004 Mar-Apr;4(2):131-153.
- ⁶¹Dietz WH. Health consequences of obesity in youth: Childhood predictors of adult disease. *Pediatrics.* 1998; 101:518-525.
- ⁶²Promoting Better Health for Young People through Physical Activity and Sports: A Report to the President from the Secretary of Health and Human Services and the Secretary of Education. Silver Spring, MD: Centers for Disease Control and Prevention; 2000.
- ⁶³Dey AN, Schiller JS, Tai DA. Summary health statistics for U.S. children: National Health Interview Survey, 2002. *National Center for Health Statistics. Vital Health Stat.* 2004; 10(221).
- ⁶⁴Romano PS, Geppert JJ, Davies S, Miller MR, Elixhauser A, McDonald KM. A national profile of patient safety in U.S. hospitals. *Health Aff (Millwood).* 2003 Mar-Apr;22(2):154-66.
- ⁶⁵Freeman HE, Aiken LH, Blendon RJ, Corey CR. Uninsured working-age adults: characteristics and consequences. *Health Serv Res.* 1990 Feb;24(6):811-23.
- ⁶⁶Hadley J. Sicker and Poorer: The consequences of being uninsured. Paper prepared for the Kaiser Commission on Medicaid and the Uninsured. Washington, DC: The Urban Institute; May 2002 (updated February 2003). Executive summary available at: <http://www.kff.org/content/2002/20020510/4051.pdf>
- ⁶⁷Greenberg S. A Profile of Older Americans: 2003. Washington, DC: Administration on Aging; 2004.
- ⁶⁸Muskie School of Public Service and Kaiser Commission on Medicaid and the Uninsured. Health insurance coverage in rural America. Washington, DC: Kaiser Family Foundation; 2003.
- ⁶⁹Rural primary care. *American College of Physicians. Ann Intern Med.* 1995 Mar 1;122(5):380-90.
- ⁷⁰Eberhardt MS, Ingram DD, Makuc DM, Pamuk ER, Freid VM, Harper SB, Schoenborn CA, Xia H. Health, United States, 2001: With Urban and Rural Health Chartbook. Hyattsville, MD: National Center for Health Statistics; 2001. Cited in: Ricketts TC. Geography and disparities in health care. In: Institute of Medicine, Committee on Guidance for Designing a National Healthcare Disparities Report. *Guidance for the National Healthcare Disparities Report.* Swift EK (Ed.). Washington, DC: National Academies Press; 2002, p. 154.
- ⁷¹van Dis J. MSJAMA. Where we live: health care in rural vs urban America. *JAMA.* 2002 Jan 2;287(1):108.
- ⁷²Improving health care for rural populations. *Research in Action.* Rockville, MD; Agency for Health Care Policy and Research (now Agency for Healthcare Research and Quality); 1996. AHCPR Publication No. 96-P040. Available at: www.ahrq.gov/research/rural.htm
- ⁷³Ciarlo JA, Wackwitz JH, Wagenfeld MO, Mohatt DF. Focusing on "Frontier": Isolated Rural America. Letter to the field no. 2. Frontier Mental Health Services Resource Network; last revised Apr 11, 1996. Available at: <http://www.wiche.edu/MentalHealth/Frontier/letter2.html> (accessed December 4, 2003).
- ⁷⁴Frontier Education Center. *Geography of Frontier America: The view at the turn of the Century.* Sante Fe, NM: Frontier Education Center; 2000.



- ⁷⁵Larson SL, Fleishman JA. Rural-urban differences in usual source of care and ambulatory service use: analyses of national data using Urban Influence Codes. *Med Care*. 2003 Jul;41(7 Suppl):III65-III74.
- ⁷⁶Hartley DL, Quam L, Lurie N. Urban and rural differences in health insurance and access to care. *J Rural Health*. 1994 Spring;10(2):98-108.
- ⁷⁷Slifkin RT, Goldsmith LJ, Ricketts TC. Race and place: urban-rural differences in health for racial and ethnic minorities. Chapel Hill, NC: University of North Carolina at Chapel Hill; 2000.
- ⁷⁸Office of Management and Budget. Revised Definitions of Metropolitan Statistical Areas, New Definitions of Micropolitan Statistical Areas and Combined Statistical Areas, and Guidance on Uses of the Statistical Definitions of These Areas. OMB Bulletin No. 03-04. Washington, DC: OMB; 2003. Available at: <http://www.whitehouse.gov/omb/bulletins/b03-04.html>
- ⁷⁹Perrin JM. Health services research for children with disabilities. *Milbank Q*. 2002;80(2):303-24.
- ⁸⁰Bethell CD, Read D, Stein RE, Blumberg SJ, Wells N, Newacheck PW Identifying children with special health care needs: development and evaluation of a short screening instrument. *Ambul Pediatr*. 2002 Jan-Feb;2(1):38-48.
- ⁸¹Mangione-Smith R, McGlynn EA. Assessing the quality of healthcare provided to children. *Health Serv Res*. 1998 Oct;33(4 Pt 2):1059-90.
- ⁸²McPherson M, Arango P, Fox H, Lauver C, McManus M, Newacheck PW, Perrin JM, Shonkoff JP, Strickland B. A new definition of children with special health care needs. *Pediatrics*. 1998 Jul;102(1 Pt 1):137-40.
- ⁸³U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. The National Survey of Children with Special Health Care Needs Chartbook. Rockville, MD: U.S. Department of Health and Human Services; 2004.
- ⁸⁴van Dyck PC, McPherson M, Strickland BB, Nesseler K, Bloomberg SJ, Cynamon ML, Newacheck PW. The national survey of children with special health care needs. *Ambul Pediatr*. 2002 Jan-Feb; 2(1):29-37.
- ⁸⁵Neff JM, Sharp VL, Muldoon J, Graham J, Myers K. Profile of medical charges for children by health status group and severity level in a Washington State Health Plan. *Health Serv Res*. 2004 Feb;39(1):73-89.
- ⁸⁶Kuhlthau K, Perrin JM, Ettner SL, McLaughlin TJ, Gortmaker SL. High-expenditure children with Supplemental Security Income. *Pediatrics*. 1998 Sep;102(3 Pt 1):610-5.
- ⁸⁷Christakis DA, Feudtner C, Pihoker C, Connell FA. Continuity and quality of care for children with diabetes who are covered by Medicaid. *Ambul Pediatr*. 2001 Mar-Apr;1(2):22-103.
- ⁸⁸Lozano P, Grothaus L, Finkelstein J, Hecht J, Farber H, Lieu T. Variability in asthma care and services for low-income populations among practice sites in managed Medicaid systems. *Health Serv Res*. 2003;38(6 Pt 1):1563-1578.
- ⁸⁹Silver EJ, Stein RE. Access to care, unmet health needs and poverty status among children with and without chronic conditions. *Ambul Pediatr*. 2001 Nov-Dec;1(6):314-20.
- ⁹⁰Newacheck PW, Hung YY, Wright KK. Racial and ethnic disparities in access to care for children with special health care needs. *Ambul Pediatr*. 2002 Jul-Aug;2(4):247-54.